SMITHSONIAN MATHEMATICAL TABLES

HYPERBOLIC FUNCTIONS

PREPARED BY

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CITY OF WASHINGTON
PUBLISHED BY THE SMITHSONIAN INSTITUTION
1909

ADVERTISEMENT.

Among the early publications of the Smithsonian Institution was a very important volume of meteorological tables by Dr. Arnold Guyot. They were so widely used by geographers and physicists as well as by meteorologists that when the fourth edition was exhausted it was decided to recast the entire work and publish three separate volumes, Meteorological Tables, Geographical Tables, and Physical Tables, each of which have now passed through several editions.

In the application of the data of these volumes to the study of natural phenomena certain mathematical tables beside those included in ordinary tables of logarithms are urgently needed in order to save recurrent computation on the part of observers and investigators. It was therefore decided to publish the present volume of Mathematical Tables, on Hyperbolic Functions.

Hyperbolic Functions are extremely useful in every branch of pure physics and in the applications of physics whether to observational and experimental sciences or to technology. Thus whenever an entity (such as light, velocity, electricity, or radioactivity) is subject to gradual extinction or absorption, the decay is represented by some form of Hyperbolic Functions. Mercator's projection is likewise computed by Hyperbolic Functions. Whenever mechanical strains are regarded as great enough to be measured they are most simply expressed in terms of Hyperbolic Functions. Hence geological deformations invariably lead to such expression, and it is for that reason that Messrs. Becker and Van Orstrand, who are in charge of the physical work of the United States Geological Survey, have been led to prepare this volume.

CHARLES D. WALCOTT, *Secretary.*

WASHINGTON, D. C., April, 1909.

CONTENTS.

DEFINITIONS AND FORMULAS.

The hyperbolic functions are named the hyperbolic sine, cosine, tangent, cotangent, secant, and cosecant from their close analogy to the circular functions, the tangent being the ratio of the hyperbolic sine to the cosine and the other three functions being reciprocals of these, as in circular trigonometry. They are usually denoted by adding *h* to the symbols of the circular functions, as cosh u for the hyperbolic cosine of u, sinh u for the hyperbolic sine of u, etc.[1]

Historically speaking, the hyperbolic functions were evolved from studies of the hyperbola. They might have been developed from the geometry of the ellipse or the catenary or that of other curves. These functions, however, may be considered independently of any geometrical interpretation and can be derived from very fundamental functional theorems.

At least two methods have been devised of defining circular and hyperbolic functions analytically. One of these is due to Mr. Yvon Villarceau,[2] and is so extremely brief that it can be given here in a somewhat modified form.

It has long been known that $e^{[illegible]} = \cos$ [illegible]

$$e^{2mi\pi} = 1;\ e^{u + 2mi\pi} = e^{u};\ e^{(u + 2m\pi)i} = e^{iu}.$$

The second of these equations has a single imaginary period, $2\,i\pi$, and the third a single real period, $2\,\pi$. Hence every exponential e^u in which u is real has a single imaginary period, $2\,i\pi$, and every exponential with the same base, but with an imaginary exponent, has a real period, $2\,\pi$. Now, all real purely circular functions may be expressed in terms of constants and exponentials with purely imaginary exponents, and all real hyperbolic functions may be expressed in terms of constants and exponentials with exclusively real exponents.

Hence hyperbolic functions may be defined as the singly periodic exponential functions with real exponents. The circular functions are then the singly periodic exponential functions with imaginary exponents.

It remains to be considered how, from this point of view, the hyperbolic functions of complex variables are to be regarded. The question almost answers itself; for

$$e^{x+iy} = e^{x} \cdot e^{iy},$$

[1] More compendious and convenient, but less usual, is the notation employed by B. de Saint-Venant, sih u, coh u, tah u.

[2] Comptes Rendus, Paris, vol. 83, 1876, p. 594.

which is evidently the product of two functions—one circular, the other hyperbolic. Such functions have a real period and an imaginary one, but since they are single-valued they are not elliptic functions.

The circular and hyperbolic functions being defined as above, it is merely as a matter of convenience that a few of the simpler combinations of exponentials receive special names, as sine, cosine, etc.

The other analytical method of generalizing the two classes of functions is due to Edward Lucas,[1] and is too long to be given here in full, but the method may be indicated. If a and b are the two roots of the equation

$$x^2 - Px + Q = 0,$$

where P and Q are positive or negative whole numbers, then two functions may be defined as follows:

$$U_n \equiv \frac{a^n - b^n}{a - b}; \quad V_n \equiv a^n + b^n,$$

and these functions are related by the equation

$$U_{2n} = U_n \, V_n.$$

Lucas develops and studies these functions, limiting n at first to whole positive numbers. He finds that all the theorems resulting from this study are converted into those of ordinary trigonometry when U is replaced by $2 \sin n$ and V by $2 \cos n$. He infers that between the limits 1 and minus 1, n may be replaced by any real value, and shows that the theorems dealing with U and V when translated into trigonometric formulas on this assumption can be verified. By substituting for n an imaginary argument, the hyperbolic functions also are found to be comprehended in the general functions U and V.

Both the circular and hyperbolic functions may further be regarded as integrals of the equation

$$\frac{d}{dx} \log \frac{d^2y}{dx^2} = \frac{d}{dx} \log y, \text{ or } \frac{d^2y}{dx^2} = cy.$$

If $c = a^2$, this gives

$$\frac{y}{a} = Ae^x + Be^{-x},$$

where A and B are arbitrary constants; so that the integral expression includes $\sinh x$, $\cosh x$, and the sum or difference of these functions.

If $c = -b^2$,

$$\frac{y}{b} = A_1 \cos x + B_1 \sin x.$$

[1] Am. Jour. of Math., vol. 1, 1878, p. 184.

The hyperbolic functions may also be defined geometrically with reference to any hyperbola.

Let $OA = a$, $OB = b$ be the semi-axes of the hyperbola AP, and its conjugate BP' referred to the rectangular axes ox and oy. The argument or independent variable u and its functions are then given by :[1]

$$u = \frac{\text{sector } OAP}{\Delta\, OAB}, \quad \sinh u = \frac{\Delta\, OAP}{\Delta\, OAB},$$

$$\cosh u = \frac{\Delta\, OPB}{\Delta\, OAB}, \text{ etc.}$$

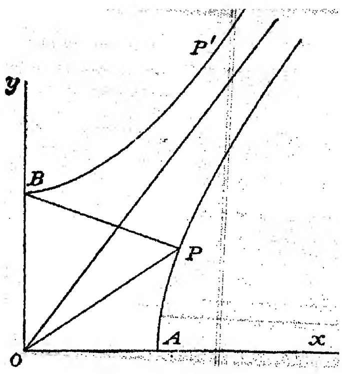

FIG. 1.

The areas of the triangles OAB, OAP, and OPB are respectively $\frac{1}{2}ab$, $\frac{1}{2}ay$ and $\frac{1}{2}bx$, and the area of the sector OAP is found from the equation of the hyperbola,

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1,$$

to be

$$S = \frac{ab}{2} \log \left(\frac{x}{a} + \frac{y}{b}\right).$$

Hence, in accordance with the above definitions,

$$u = \frac{2S}{ab} = \log \left(\frac{x}{a} + \frac{y}{b}\right),$$

$$\sinh u = \frac{y}{b} = \tfrac{1}{2}(e^u - e^{-u}),$$

$$\cosh u = \frac{x}{a} = \tfrac{1}{2}(e^u + e^{-u}).$$

Similarly the argument and functions of circular trigonometry are:

$$\theta = \frac{2S}{r^2} = \frac{\text{arc}}{\text{radius}},$$

$$\sin\theta = \frac{y}{r} = -\tfrac{1}{2}i\,(e^{i\theta} - e^{-i\theta}),$$

$$\cos\theta = \frac{x}{r} = \tfrac{1}{2}(e^{i\theta} + e^{-i\theta}).$$

A comparison of the preceding equations shows that there exist between the two sets of arguments and functions many interesting analogies and relations. The arguments are in each case the ratio of two areas, although the argument of the circular functions may also be defined as a ratio of two lines;

[1] For definitions which are independent of the position of the sectorial areas see Prof. James McMahon's "Hyperbolic Functions" and a paper "On the Introduction of the Notion of Hyperbolic Functions," by Prof. M. W. Haskell, Bull. Am. Math. Soc., vol. 1, 1894–95.

the hyperbolic functions stand in the same relation to the *equilateral* hyperbola as the circular functions do to the circle; each set of functions may be defined analytically as a particular branch of the theory of the exponential function, and it is possible to pass from the one to the other by means of the imaginary $i = \sqrt{-1}$. For example,

$$\sinh u = -i \sin iu,$$
$$\cosh u = \cos iu,$$
$$\tanh u = -i \tan iu.$$

Furthermore, every rational function of the hyperbolic functions and their inverts can be integrated by the help of corresponding known integrals of circular functions. Thus, to find $\int \operatorname{sech} u\, du$ from

$$\int \sec u\, du = \frac{1}{2} \log \frac{1 + \sin u}{1 - \sin u} = \log \frac{1 + \tan \frac{u}{2}}{1 - \tan \frac{u}{2}}$$

substitute iu for u and reduce to the form

$$\int \operatorname{sech} u\, du = \frac{1}{i} \log \frac{1 + i \tanh \frac{u}{2}}{1 - i \tanh \frac{u}{2}}$$

If in this equation $\tanh \frac{u}{2}$ is replaced by y, the second member coincides in form with the expression for $2 \tan^{-1} y$ given below.

Hence

$$\int \operatorname{sech} u\, du = 2 \tan^{-1}(\tanh \frac{u}{2}) = gd\, u.$$

Similarly, when a differential is encountered the integral of which is not to be found in this collection, it is expedient to deduce the corresponding expression in cyclic functions by substitution of ix for x, etc., and then to make a search for its integral.

Most interesting is the relation existing between the formulæ of spherical trigonometry and the formulæ of Lobachevsky's imaginary geometry, hyperbolic geometry, or pseudo-spherical geometry, as it is sometimes called. Lobachevsky defines the angle CPA as the angle of parallelism, the line PC being the limiting position of PB when the distance AB is infinite. In this geometry two parallels, PC

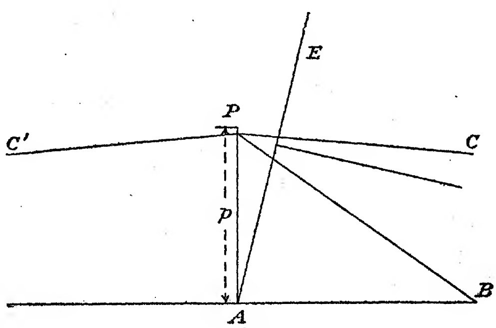

FIG. 2.

and PC', may be drawn from a point P to a line AB; the sum of the angles of a triangle is less than two right angles, and the angle of parallelism $\Pi(p)$ is dependent upon the perpendicular distance p of the point P from the line AB. If now any line passing through A, such as AE, is extended until the perpendicular erected at its middle point is parallel to AB, the locus of the points E is a boundary curve, and the revolution of this curve about AB or one of its parallels develops a boundary surface. It is upon this surface of constant negative curvature that Lobachevsky imagines a triangle of sides a, b, c and angles A, B, C to be drawn. He establishes as fundamental relations between the sides and angles of this triangle[1]

$$\sin A \tan \Pi(a) = \sin B \tan \Pi(b) = \sin C \tan \Pi(c),$$
$$\sin \Pi(b) \sin \Pi(c) = \sin \Pi(a) - \cos \Pi(b) \cos \Pi(c) \sin \Pi(a) \cos A,$$
$$\sin \Pi(a) \cos A = -\cos B \cos C \sin \Pi(a) + \sin B \sin C,$$

and also proves that

$$\sin \Pi(u) = (\cos iu)^{-1} = (\cosh u)^{-1},$$
$$\tan \Pi(u) = i(\sin iu)^{-1} = (\sinh u)^{-1},$$
$$\cos \Pi(u) = -i \tan iu = \tanh u.$$

Hence the preceding equations may be written

$$\frac{\sin A}{\sinh a} = \frac{\sin B}{\sinh b} = \frac{\sin C}{\sinh c},$$
$$\cosh a = \cosh b \cosh c - \sinh b \sinh c \cos A,$$
$$\cos A = -\cos B \cos C + \sin B \sin C \cosh a.$$

These formulas are, in fact, precisely those of spherical trigonometry, in which the real sides a, b, c have been replaced by the imaginaries ia, ib, ic. If the triangle on the boundary surface is infinitesimal, the above equations reduce to the well-known relations between the sides and angles of a triangle on the Euclidean plane. The theorems of non-Euclidean geometry may not therefore be inconsistent with experience, for the largest triangle which we can measure is infinitesimal in comparison with a triangle on the boundary surface. Lobachevsky pointed out that a triangle on a boundary surface would correspond to a triangle connecting three stars in distant parts of the universe, and that the postulates of his geometry, involving as they do the question of the curvature of space, would be capable of experimental proof if the parallaxes of distant stars could be measured with sufficient accuracy.

Lastly, there is an important relation between the numerical values of the circular and hyperbolic functions. If the argument u assumes successive values between 0 and $+\infty$, $\sinh u$ assumes successive values between 0 and $+\infty$ just as $\tan \alpha$ does when α varies from 0 to 90°; $\cosh u$ assumes values between 1 and $+\infty$ like $\sec \beta$, and $\tanh u$ assumes values between 0 and 1

[1] H. P. Manning's Non-Euclidean Geometry, p. 60.

in the same way as $\sin \gamma$. The variation of the hyperbolic functions throughout the entire plane and their similarity to the circular functions between the limits 0° and 180° is shown in the diagram. Since each of the functions is singly periodic, there must be a single value of α, β, γ corresponding to a particular value of u, such that

$$\sinh u = \tan \alpha,$$
$$\cosh u = \sec \beta,$$
$$\tanh u = \sin \gamma.$$

It will be found by substituting in the trigonometric formulæ that $\alpha = \beta = \gamma = \phi$, and the required relations are therefore

$$\cosh u = \sec \phi,$$
$$\sinh u = \tan \phi,$$
$$\tanh u = \sin \phi.$$

The angle ϕ which renders it possible to evaluate the hyperbolic functions by means of the circular functions is of great importance in pure and applied mathematics. Some of its properties and applications will be considered in the section on geometrical illustrations. It is called gudermannian u and is written

$$\phi = gd\ u.$$

The following list of formulæ involving the hyperbolic functions might be greatly extended, but it includes the most useful relations.[1]

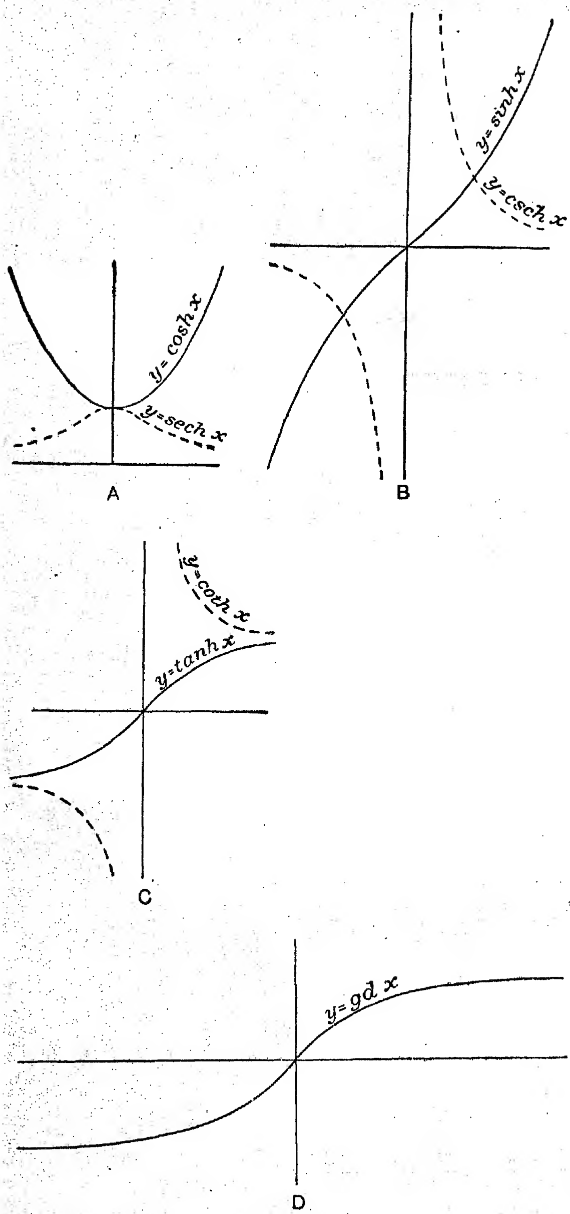

FIG. 3.

[1] Taken with additions from Prof. B. O. Peirce's Short Table of Integrals, and Prof. McMahon's Hyperbolic Functions.

A.—Relations between Hyperbolic and Circular Functions.

1. $\sinh u = -i \sin iu = \tan gd\, u.$
2. $\cosh u = \cos iu = \sec gd\, u.$
3. $\tanh u = -i \tan iu = \sin gd\, u.$
4. $\tanh \frac{1}{2} u = \tan \frac{1}{2} gd\, u.$
5. $e^u = (1 + \sin gd\, u) \div \cos gd\, u,$
   $= [1 - \cos(\frac{1}{2}\pi + gd\, u)] \div \sin(\frac{1}{2}\pi + gd\, u),$
   $= \tan(\frac{1}{4}\pi + \frac{1}{2} gd\, u).$
6. $\sinh iu = i \sin u.$
7. $\cosh iu = \cos u.$
8. $\tanh iu = i \tan u.$
9. $\sinh (u \pm iv) = \pm i \sin (v \mp iu),$
   $= \sinh u \cos v \pm i \cosh u \sin v.$
10. $\cosh (u \pm iv) = \cos (v \mp iu),$
   $= \cosh u \cos v \pm i \sinh u \sin v.$
11. $\cosh (mi\pi) = \cos m\pi.$ (m is an integer.)
12. $\sinh (2m + 1) \frac{1}{2} i\pi = i \sin (2m + 1) \frac{1}{2}\pi.$ (m is an integer.)

B.—Relations among the Hyperbolic Functions.

13. $\sinh u = \frac{1}{2}(e^u - e^{-u}) = -\sinh(-u) = (\operatorname{csch} u)^{-1},$
   $= 2 \tanh \frac{1}{2} u \div (1 - \tanh^2 \frac{1}{2} u) = \tanh u \div (1 - \tanh^2 u)^{\frac{1}{2}}.$
14. $\cosh u = \frac{1}{2}(e^u + e^{-u}) = \cosh(-u) = (\operatorname{sech} u)^{-1},$
   $= (1 + \tanh^2 \frac{1}{2} u) \div (1 - \tanh^2 \frac{1}{2} u) = 1 \div (1 - \tanh^2 u)^{\frac{1}{2}}.$
15. $\tanh u = (e^u - e^{-u}) \div (e^u + e^{-u}) = -\tanh(-u),$
   $= (\coth u)^{-1} = \sinh u \div \cosh u = (1 - \operatorname{sech}^2 u)^{\frac{1}{2}}.$
16. $\operatorname{sech} u = \operatorname{sech}(-u) = (1 - \tanh^2 u)^{\frac{1}{2}}.$
17. $\operatorname{csch} u = -\operatorname{csch}(-u) = (\coth^2 u - 1)^{\frac{1}{2}}.$
18. $\coth u = -\coth(-u) = (\operatorname{csch}^2 u + 1)^{\frac{1}{2}}.$
19. $\cosh^2 u - \sinh^2 u = 1.$
20. $\sinh \frac{1}{2} u = \sqrt{\frac{1}{2}(\cosh u - 1)}.$
21. $\cosh \frac{1}{2} u = \sqrt{\frac{1}{2}(\cosh u + 1)}.$
22. $\tanh \frac{1}{2} u = (\cosh u - 1) \div \sinh u,$
   $= \sinh u \div (1 + \cosh u) = \sqrt{(\cosh u - 1) \div (\cosh u + 1)}$
23. $\sinh 2u = 2 \sinh u \cosh u = 2 \tanh u \div (1 - \tanh^2 u).$
24. $\cosh 2u = \cosh^2 u + \sinh^2 u = 2\cosh^2 u - 1,$
   $= 1 + 2\sinh^2 u = (1 + \tanh^2 u) \div (1 - \tanh^2 u).$
25. $\tanh 2u = 2 \tanh u \div (1 + \tanh^2 u).$
26. $\sinh 3u = 3 \sinh u + 4 \sinh^3 u.$
27. $\cosh 3u = 4 \cosh^3 u - 3 \cosh u.$
28. $\tanh 3u = (3 \tanh u + \tanh^3 u) \div (1 + 3 \tanh^2 u).$

29. $\sinh nu =$
$$n \cosh^{n-1} u \sinh u + \frac{(n)(n-1)(n-2)}{6} \cosh^{n-3} u \sinh^3 u + \ldots$$

30. $\cosh nu = \cosh^n u + \frac{n(n-1)}{2} \cosh^{n-2} u \sinh^2 u + \ldots\ldots$

31. $\sinh u + \sinh v = 2 \sinh \frac{1}{2}(u+v) \cosh \frac{1}{2}(u-v).$

32. $\sinh u - \sinh v = 2 \cosh \frac{1}{2}(u+v) \sinh \frac{1}{2}(u-v).$

33. $\cosh u + \cosh v = 2 \cosh \frac{1}{2}(u+v) \cosh \frac{1}{2}(u-v).$

34. $\cosh u - \cosh v = 2 \sinh \frac{1}{2}(u+v) \sinh \frac{1}{2}(u-v).$

35. $\sinh u + \cosh u = (1 + \tanh \frac{1}{2} u) \div (1 - \tanh \frac{1}{2} u).$

36. $(\sinh u + \cosh u)^n = \cosh nu + \sinh nu.$

37. $\tanh u + \tanh v = \sinh (u+v) \div \cosh u \cosh v.$

38. $\tanh u - \tanh v = \sinh (u-v) \div \cosh u \cosh v.$

39. $\coth u + \coth v = \sinh (u+v) \div \sinh u \sinh v.$

40. $\coth u - \coth v = -\sinh (u-v) \div \sinh u \sinh v.$

41. $\sinh (u \pm v) = \sinh u \cosh v \pm \cosh u \sinh v.$

42. $\cosh (u \pm v) = \cosh u \cosh v \pm \sinh u \sinh v.$

43. $\tanh (u \pm v) = (\tanh u \pm \tanh v) \div (1 \pm \tanh u \tanh v).$

44. $\coth (u \pm v) = (\coth u \coth v \pm 1) \div (\coth v \pm \coth u).$

45. $\sinh (u+v) + \sinh (u-v) = 2 \sinh u \cosh v.$

46. $\sinh (u+v) - \sinh (u-v) = 2 \cosh u \sinh v.$

47. $\cosh (u+v) + \cosh (u-v) = 2 \cosh u \cosh v.$

48. $\cosh (u+v) - \cosh (u-v) = 2 \sinh u \sinh v.$

49. $\tanh \frac{1}{2}(u+v) = (\sinh u + \sinh v) \div (\cosh u + \cosh v).$

50. $\tanh \frac{1}{2}(u-v) = (\sinh u - \sinh v) \div (\cosh u + \cosh v).$

51. $\coth \frac{1}{2}(u+v) = (\sinh u - \sinh v) \div (\cosh u - \cosh v).$

52. $\coth \frac{1}{2}(u-v) = (\sinh u + \sinh v) \div (\cosh u - \cosh v).$

53. $\dfrac{\tanh u + \tanh v}{\tanh u - \tanh v} = \dfrac{\sinh (u+v)}{\sinh (u-v)}.$

54. $\dfrac{\coth u + \coth v}{\coth u - \coth v} = -\dfrac{\sinh (u+v)}{\sinh (u-v)}.$

55. $\sinh (u+v) + \cosh (u+v) = (\cosh u + \sinh u)(\cosh v + \sinh v)$

56. $\sinh (u+v) \sinh (u-v) = \sinh^2 u - \sinh^2 v,$
$= \cosh^2 u - \cosh^2 v.$

57. $\cosh (u+v) \cosh (u-v) = \cosh^2 u + \sinh^2 v,$
$= \sinh^2 u + \cosh^2 v.$

58. $\sinh (mi\pi) = 0.$ (m is an integer).

59. $\cosh (mi\pi) = (-1)^m.$

60. $\tanh (mi\pi) = 0.$

61. $\sinh (u + mi\pi) = (-1)^m \sinh u.$

62. $\cosh (u + mi\pi) = (-1)^m \cosh u.$

63. $\sinh (2m+1) \frac{1}{2} i\pi = \pm i.$

64. $\cosh\,(2\,m+1)\,\frac{1}{2}\,i\,\pi = 0.$

65. $\sinh\left(\frac{i\,\pi}{2} \pm u\right) = i\cosh u.$

66. $\cosh\left(\frac{i\,\pi}{2} \pm u\right) = \pm\, i \sinh u.$

67. $\tanh\,(u + i\pi) = \tanh u.$

C.—Inverse Hyperbolic Functions.

68. $\sinh^{-1} u = \log\,(u + \sqrt{u^2+1}) = \cosh^{-1}\sqrt{u^2+1} = \int \frac{du}{(u^2+1)^{\frac{1}{2}}}.$

69. $\cosh^{-1} u = \log\,(u + \sqrt{u^2-1}) = \sinh^{-1}\sqrt{u^2-1} = \int \frac{du}{(u^2-1)^{\frac{1}{2}}}.$

70. $\tanh^{-1} u = \frac{1}{2}\log\,(1+u) - \frac{1}{2}\log\,(1-u) = \int \frac{du}{1-u^2}.$

71. $\coth^{-1} u = \frac{1}{2}\log\,(1+u) - \frac{1}{2}\log\,(u-1) = \int \frac{du}{1-u^2} = \tanh^{-1}\frac{1}{u}.$

72. $\operatorname{sech}^{-1} u = \log\left(\frac{1}{u} + \sqrt{\frac{1}{u^2} - 1}\right) = -\int \frac{du}{u(1-u^2)^{\frac{1}{2}}} = \cosh^{-1}\frac{1}{u}.$

73. $\operatorname{csch}^{-1} u = \log\left(\frac{1}{u} + \sqrt{\frac{1}{u^2} + 1}\right) = -\int \frac{du}{u(u^2+1)^{\frac{1}{2}}} = \sinh^{-1}\frac{1}{u}.$

74. $\sin^{-1} u = -i\sinh^{-1} iu = -i\log\,(iu + \sqrt{1-u^2}).$

75. $\cos^{-1} u = -i\cosh^{-1} u = -i\log\,(u + i\sqrt{1-u^2}).$

76. $\tan^{-1} u = -i\tanh^{-1} iu = \frac{1}{2\,i}\log\,(1+iu) - \frac{1}{2\,i}\log\,(1-iu).$

77. $\cot^{-1} u = i\coth^{-1} iu = \frac{1}{2\,i}\log\,(iu-1) - \frac{1}{2\,i}\log\,(iu+1).$

78. $\sin^{-1} iu = i\sinh^{-1} u = i\log\,(u + \sqrt{1+u^2}).$

79. $\cos^{-1} iu = -i\cosh^{-1} iu = \frac{\pi}{2} - i\log\,(u + \sqrt{1+u^2}).$

80. $\tan^{-1} iu = i\tanh^{-1} u = \frac{i}{2}\log\,(1+u) - \frac{i}{2}\log\,(1-u).$

81. $\cot^{-1} iu = -i\coth^{-1} u = -\frac{i}{2}\log\,(u+1) + \frac{i}{2}\log\,(u-1).$

82. $\cosh^{-1}\frac{1}{2}\left(u + \frac{1}{u}\right) = \sinh^{-1}\frac{1}{2}\left(u - \frac{1}{u}\right) = \tanh^{-1}\frac{u^2-1}{u^2+1},$

$$= 2\tanh^{-1}\frac{u-1}{u+1} = \log u.$$

83. $\tanh^{-1}\tan u = \frac{1}{2}\,gd\;2\,u.$

84. $\tan^{-1}\tanh u = \frac{1}{2}\,gd^{-1}\,2\,u.$

85. $\cosh^{-1}\csc 2\,u = -\sinh^{-1}\cot 2\,u = -\tanh^{-1}\cos 2\,u = \log\tan u.$

86. $\tanh^{-1}\tan^2(\frac{1}{4}\pi+\frac{1}{2}u)=\frac{1}{2}\log\csc u.$

87. $\tanh^{-1}\tan^2\frac{1}{2}u=\frac{1}{2}\log\sec u.$

88. $\cosh^{-1}u\pm\cosh^{-1}v=\cosh^{-1}[uv\pm\sqrt{(u^2-1)(v^2-1)}].$

89. $\sinh^{-1}u\pm\sinh^{-1}v=\sinh^{-1}[u\sqrt{1+v^2}\pm v\sqrt{1+u^2}].$

D.—Series.

90. $e^u=1+u+\frac{u^2}{2!}+\frac{u^3}{3!}+\frac{u^4}{4!}+\dots \qquad (u^2<\infty.)$

91. $\log u=(u-1)-\frac{1}{2}(u-1)^2+\frac{1}{3}(u-1)^3-\dots \qquad (2>u>0.)$

92. $\log u=\frac{u-1}{u}+\frac{1}{2}\left(\frac{u-1}{u}\right)^2+\frac{1}{3}\left(\frac{u-1}{u}\right)^3+\dots \qquad (u>\frac{1}{2}.)$

93. $\log u=2\left[\frac{u-1}{u+1}+\frac{1}{3}\left(\frac{u-1}{u+1}\right)^3+\frac{1}{5}\left(\frac{u-1}{u+1}\right)^5+\dots\right] \qquad (u>0.)$

94. $\log(1+u)=u-\frac{1}{2}u^2+\frac{1}{3}u^3-\frac{1}{4}u^4+\dots \qquad (u^2<1.)$

95. $\log\left(\frac{1+u}{1-u}\right)=2\left[u+\frac{1}{3}u^3+\frac{1}{5}u^5+\frac{1}{7}u^7+\dots\right] \qquad (u^2<1.)$

96. $\log\left(\frac{u+1}{u-1}\right)=2\left[\frac{1}{u}+\frac{1}{3}\left(\frac{1}{u}\right)^3+\frac{1}{5}\left(\frac{1}{u}\right)^5+\dots\right] \qquad (u^2>1.)$

97. $\sinh u=u+\frac{u^3}{3!}+\frac{u^5}{5!}+\frac{u^7}{7!}+\dots \qquad (u^2<\infty.)$

$$=u\left(1+\frac{u^2}{\pi^2}\right)\left(1+\frac{u^2}{2^2\pi^2}\right)\left(1+\frac{u^2}{3^2\pi^2}\right)\dots \qquad (u^2<\infty.)$$

98. $\cosh u=1+\frac{u^2}{2!}+\frac{u^4}{4!}+\frac{u^6}{6!}+\dots \qquad (u^2<\infty.)$

$$=\left(1+\frac{4u^2}{\pi^2}\right)\left(1+\frac{4u^2}{3^2\pi^2}\right)\left(1+\frac{4u^2}{5^2\pi^2}\right)\dots \qquad (u^2<\infty.)$$

99. $\tanh u=u-\frac{1}{3}u^3+\frac{2}{15}u^5-\frac{17}{315}u^7+\dots \qquad (u^2<\frac{1}{4}\pi^2.)$

100. $u\coth u=1+\frac{1}{3}u^2-\frac{1}{45}u^4+\frac{2}{945}u^6-\dots \qquad (u^2<\pi^2.)$

101. $\operatorname{sech} u=1-\frac{1}{2}u^2+\frac{5}{24}u^4-\frac{61}{720}u^6+\dots \qquad (u^2<\frac{1}{4}\pi^2.)$

102. $u\operatorname{csch} u=1-\frac{1}{6}u^2+\frac{7}{360}u^4-\frac{31}{15120}u^6+\dots \qquad (u^2<\pi^2.)$

103. $gd\,u=\phi=u-\frac{1}{6}u^3+\frac{1}{24}u^5-\frac{61}{5040}u^7+\dots \qquad (u \text{ small.})$

$$=\frac{\pi}{2}-\operatorname{sech} u-\frac{1}{2}\frac{\operatorname{sech}^3 u}{3}-\frac{1}{2}\frac{3}{4}\frac{\operatorname{sech}^5 u}{5}-\dots \qquad (u \text{ large.})$$

104. $u = gd^{-1}\phi = \phi + \frac{1}{6}\phi^3 + \frac{1}{24}\phi^5 + \frac{61}{5040}\phi^7 + \ldots \qquad \left(\phi < \frac{\pi}{2}.\right)$

105. $\sinh^{-1} u = u - \frac{1}{2}\frac{u^3}{3} + \frac{1}{2}\frac{3}{4}\frac{u^5}{5} - \frac{1}{2}\frac{3}{4}\frac{5}{6}\frac{u^7}{7} + \ldots \qquad (u^2 < 1.)$

$= \log 2u + \frac{1}{2}\frac{1}{2u^2} - \frac{1}{2}\frac{3}{4}\frac{1}{4u^4} + \frac{1}{2}\frac{3}{4}\frac{5}{6}\frac{1}{6u^6} - \ldots \quad (u^2 > 1.)$

106. $\cosh^{-1} u = \log 2u - \frac{1}{2}\frac{1}{2u^2} - \frac{1\,3}{2\,4}\frac{1}{4u^4} - \frac{1\,3\,5}{2\,4\,6}\frac{1}{6u^6} - \ldots \quad (u^2 > 1.)$

107. $\tanh^{-1} u = u + \frac{1}{3}u^3 + \frac{1}{5}u^5 + \frac{1}{7}u^7 + \ldots \qquad (u^2 < 1.)$

108. $\coth^{-1} u = \tanh^{-1}\frac{1}{u} = \frac{1}{u} + \frac{1}{3u^3} + \frac{1}{5u^5} + \frac{1}{7u^7} + \ldots \quad (u^2 > 1.)$

109. $\operatorname{sech}^{-1} u = \cosh^{-1}\frac{1}{u} = \log\frac{2}{u} - \frac{1}{2}\frac{u^2}{2} - \frac{1\,3}{2\,4}\frac{u^4}{4} - \frac{1\,3\,5}{2\,4\,6}\frac{u^6}{6} - \ldots \quad (u^2 < 1.)$

110. $\operatorname{csch}^{-1} u = \sinh^{-1}\frac{1}{u} = \frac{1}{u} - \frac{1}{2}\frac{1}{3u^3} + \frac{1}{2}\frac{3}{4}\frac{1}{5u^5} - \frac{1}{2}\frac{3}{4}\frac{5}{6}\frac{1}{7u^7} + \ldots \quad (u^2 > 1.)$

$= \log\frac{2}{u} + \frac{1}{2}\frac{u^2}{2} - \frac{1}{2}\frac{3}{4}\frac{u^4}{4} + \frac{1}{2}\frac{3}{4}\frac{5}{6}\frac{u^6}{6} - \ldots \quad (u^2 < 1.)$

E.—Derivatives.

111. $\frac{d\,e^u}{du} = e^u.$

112. $d\frac{\log_e u}{du} = \frac{1}{u}.$

113. $\frac{d\,a^v}{du} = a^v \cdot \frac{dv}{du} \cdot \log_e a.$

114. $\frac{d\,u^u}{du} = u^u\,(1 + \log_e u).$

115. $\frac{d\sinh u}{du} = \cosh u.$

116. $\frac{d\cosh u}{du} = \sinh u.$

117. $\frac{d\tanh u}{du} = \operatorname{sech}^2 u.$

118. $\frac{d\coth u}{du} = -\operatorname{csch}^2 u.$

119. $\frac{d\operatorname{sech} u}{du} = -\operatorname{sech} u.\ \tanh u.$

120. $\frac{d\operatorname{csch} u}{du} = -\operatorname{csch} u.\ \coth u.$

121. $\frac{d\sinh^{-1} u}{du} = \frac{1}{\sqrt{u^2+1}}.$

122. $\dfrac{d \cosh^{-1} u}{du} = \dfrac{1}{\sqrt{u^2 - 1}}.$

123. $\dfrac{d \tanh^{-1} u}{du} = \dfrac{1}{1 -}$

124. $\dfrac{d \coth^{-1} u}{du} = \dfrac{1}{1 - u^2}.$

125. $\dfrac{d \operatorname{sech}^{-1} u}{du} = \dfrac{-1}{u \sqrt{1 - u^2}}$

126. $\dfrac{d \operatorname{csch}^{-1} u}{du} = \dfrac{-1}{u \sqrt{u^2 + 1}}$

127. $\dfrac{d \operatorname{gd} u}{du} = \operatorname{sech} u.$

128. $\dfrac{d \operatorname{gd}^{-1} u}{du} = \sec u.$

F.—Integrals. (Integration Constants are Omitted.)

129. $\int \sinh u \, du = \cosh u.$

130. $\int \cosh u \, du = \sinh u.$

131. $\int \tanh u \, du = \log \cosh u.$

132. $\int \coth u \, du = \log \sinh u.$

133. $\int \operatorname{sech} u \, du = 2 \tan^{-1} e^u = \operatorname{gd} u.$

134. $\int \operatorname{csch} u \, du = \log \tanh \dfrac{u}{2}.$

135. $\int \sinh^n u \, du = \dfrac{1}{n} \sinh^{n-1} u . \cosh u - \dfrac{n-1}{n} \int \sinh^{n-2} u \, du,$

$= \dfrac{1}{n+1} \sinh^{n+1} u \cosh u - \dfrac{n+2}{n+1} \int \sinh^{n+2} u \, du.$

136. $\int \cosh^n u \, du = \dfrac{1}{n} \sinh u . \cosh^{n-1} u + \dfrac{n-1}{n} \int \cosh^{n-2} u \, du,$

$= - \dfrac{1}{n+1} \sinh u \cosh^{n+1} u + \dfrac{n+2}{n+1} \int \cosh^{n+2} u \, du.$

137. $\int u \sinh u \, du = u \cosh u - \sinh u.$

138. $\int u \cosh u \, du = u \sinh u - \cosh u.$

139. $\int u^2 \sinh u \, du = (u^2 + 2) \cosh u - 2 u \sinh u.$

140. $\int u^n \sinh u \, du = u^n \cosh u - n u^{n-1} \sinh u$

$+ n(n-1) \int u^{n-2} \sinh u du.$

141. $\int \sinh^2 u\, du = \frac{1}{2} (\sinh u \cosh u - u)$.

142. $\int \sinh u . \cosh u\, du = \frac{1}{4} \cosh (2u)$.

143. $\int \cosh^2 u\, du = \frac{1}{2} (\sinh u \cosh u + u)$.

144. $\int \tanh^2 u\, du = u - \tanh u$.

145. $\int \coth^2 u\, du = u - \coth u$.

146. $\int \operatorname{sech}^2 u\, du = \tanh u$.

147. $\int \operatorname{sech}^3 u\, du = \frac{1}{2} \operatorname{sech} u \tanh u + \frac{1}{2} \operatorname{gd} u$.

148. $\int \operatorname{csch}^2 u\, du = - \coth u$.

149. $\int \sinh^{-1} u\, du = u \sinh^{-1} u - (1 + u^2)^{\frac{1}{2}}$.

150. $\int \cosh^{-1} u\, du = u \cosh^{-1} u - (u^2 - 1)^{\frac{1}{2}}$.

151. $\int \tanh^{-1} u\, du = u \tanh^{-1} u + \frac{1}{2} \log (1 - u^2)$.

152. $\int u \sinh^{-1} u\, du = \frac{1}{4} \left[(2u^2 + 1) \sinh^{-1} u - u(1 + u^2)^{\frac{1}{2}} \right]$.

153. $\int u \cosh^{-1} u\, du = \frac{1}{4} \left[(2u^2 - 1) \cosh^{-1} u - u(u^2 - 1)^{\frac{1}{2}} \right]$.

154. $\int (\cosh a + \cosh u)^{-1} du = 2 \operatorname{csch} a . \tanh^{-1} (\tanh \frac{1}{2} u . \tanh \frac{1}{2} a)$,

$$= \operatorname{csch} a \left[\log \cosh \tfrac{1}{2} (u + a) - \log \cosh \tfrac{1}{2} (u - a) \right].$$

155. $\int (\cos a + \cosh u)^{-1} du = 2 \csc a . \tan^{-1} (\tanh \frac{1}{2} u . \tan \frac{1}{2} a)$.

156. $\int (1 + \cos a . \cosh u)^{-1} du = 2 \csc a . \tanh^{-1} (\tanh \frac{1}{2} u . \tan \frac{1}{2} a)$.

157. $\int \sinh u \cos u\, du = \frac{1}{2} (\cosh u . \cos u + \sinh u . \sin u)$.

158. $\int \cosh u . \cos u\, du = \frac{1}{2} (\sinh u . \cos u + \cosh u . \sin u)$.

159. $\int \sinh u . \sin u\, du = \frac{1}{2} (\cosh u . \sin u - \sinh u . \cos u)$.

160. $\int \cosh u . \sin u\, du = \frac{1}{2} (\sinh u . \sin u - \cosh u . \cos u)$.

161. $\int \sinh (mu) \sinh (nu)\, du$

$$= \frac{1}{m^2 - n^2} \left[m \sinh (nu) \cosh (mu) - n \cosh (nu) \sinh (mu) \right].$$

162. $\int \cosh(mu)\sinh(nu)\,du$

$$= \frac{1}{m^2-n^2}\Big[m\sinh(nu)\sinh(mu) - n\cosh(nu)\cosh(mu)\Big].$$

163. $\int \cosh(mu)\cosh(nu)\,du$

$$= \frac{1}{m^2-n^2}\Big[m\sinh(mu)\cosh(nu) - n\sinh(nu)\cosh(mu)\Big].$$

164. $\int \sinh u \tanh u\,du = \sinh u - gd\,u.$

165. $\int \cosh u \coth u\,du = \cosh u + \log\tanh\frac{u}{2}.$

166. $\int \sec u\,du = \mathrm{gd}^{-1} u.$

167. $\int \sec^3\phi\,d\phi = \int (1+\tan^2\phi)^{\frac{1}{2}}\,d\tan\phi = \frac{1}{2}\sec\phi\tan\phi + \frac{1}{2}\,\mathrm{gd}^{-1}\phi,$

$= \frac{1}{2}\tan\phi\,(1+\tan^2\phi)^{\frac{1}{2}} + \frac{1}{2}\sinh^{-1}(\tan\phi)$. Here $\phi = gd\,u$.

168. $\int \frac{du}{(u^2+a^2)^{\frac{1}{2}}} = \sinh^{-1}\frac{u}{a}.$ $\qquad \int \frac{du}{(a^2-u^2)^{\frac{1}{2}}} = \sin^{-1}\frac{u}{a}.$

169. $\int \frac{du}{(u^2-a^2)^{\frac{1}{2}}} = \cosh^{-1}\frac{u}{a}.$ $\qquad \int \frac{-du}{(a^2-u^2)^{\frac{1}{2}}} = \cos^{-1}\frac{u}{a}.$

170. $\int \frac{du}{(a^2-u^2)_{u<a}} = \frac{1}{a}\tanh^{-1}\frac{u}{a}.$ $\qquad \int \frac{du}{a^2+u^2} = \frac{1}{a}\tan^{-1}\frac{u}{a}.$

171. $\int \frac{-du}{(u^2-a^2)_{u>a}} = \frac{1}{a}\coth^{-1}\frac{u}{a}.$ $\qquad \int \frac{-du}{a^2+u^2} = \frac{1}{a}\cot^{-1}\frac{u}{a}$

172. $\int \frac{-du}{u(a^2-u^2)^{\frac{1}{2}}} = \frac{1}{a}\,\mathrm{sech}^{-1}\frac{u}{a}.$ $\qquad \int \frac{du}{u(u^2-a^2)^{\frac{1}{2}}} = \frac{1}{a}\sec^{-1}\frac{u}{a}$

173. $\int \frac{-du}{u(a^2+u^2)^{\frac{1}{2}}} = \frac{1}{a}\,\mathrm{csch}^{-1}\frac{u}{a}.$ $\qquad \int \frac{-du}{u(u^2-a^2)} = \frac{1}{a}\csc^{-1}\frac{u}{a}.$

174. $\int \frac{du}{(au^2+2bu+c)^{\frac{1}{2}}} = \frac{1}{\sqrt{a}}\sinh^{-1}\frac{au+b}{(ac-b^2)^{\frac{1}{2}}},$ $\quad a$ positive, $ac > b^2$;

$= \frac{1}{\sqrt{a}}\cosh^{-1}\frac{au+b}{(b^2-ac)^{\frac{1}{2}}},$ $\quad a$ positive, $ac < b^2$;

$= \frac{1}{\sqrt{-a}}\cos^{-1}\frac{au+b}{(b^2-ac)^{\frac{1}{2}}},$ $\quad a$ negative.

175. $\int \frac{du}{(au^2+2bu+c)} = \frac{1}{(ac-b^2)^{\frac{1}{2}}}\tan^{-1}\frac{au+b}{(ac-b^2)^{\frac{1}{2}}},$ $\quad ac > b^2$;

$= \frac{-1}{(b^2-ac)^{\frac{1}{2}}}\tanh^{-1}\frac{au+b}{(b^2-ac)^{\frac{1}{2}}},$ $\quad ac < b^2$, $au+b < (b^2-ac)^{\frac{1}{2}}$.

$(b^2-ac)^{\frac{1}{2}}\coth^{-1}\frac{au+b}{(b^2-ac)^{\frac{1}{2}}},$ $\quad ac < b^2$, $au+b > (b^2-ac)^{\frac{1}{2}}$.

176. $\displaystyle\int \frac{du}{(a-u)(u-b)^{1/2}} = \frac{2}{(a-b)^{1/2}} \tanh^{-1} \sqrt{\frac{u-b}{a-b}},$

or $\displaystyle\frac{-2}{(b-a)^{1/2}} \tan^{-1} \sqrt{\frac{u-b}{b-a}},$

or $\displaystyle\frac{}{(a-b)^{1/2}} \coth^{-1} \sqrt{\frac{u-b}{a-b}}.$ (The real form is to be taken.

177. $\displaystyle\int \frac{du}{(a-u)(b-u)^{1/2}} = \frac{2}{(b-a)^{1/2}} \tanh^{-1} \sqrt{\frac{b-u}{b-a}},$

or $\displaystyle\frac{2}{(b-a)^{1/2}} \coth^{-1} \sqrt{\frac{b-u}{b-a}},$

or $\displaystyle\frac{-2}{(a-b)^{1/2}} \tan^{-1} \sqrt{\frac{b-u}{a-b}}.$ (The real form is to be taken.)

178. $\displaystyle\int (u^2-a^2)^{1/2}\,du = \tfrac{1}{2}u(u^2-a^2)^{1/2} - \tfrac{1}{2}a^2 \cosh^{-1}\frac{u}{a}.$

179. $\displaystyle\int (a^2-u^2)^{1/2}\,du = \tfrac{1}{2}u(a^2-u^2)^{1/2} + \tfrac{1}{2}a^2 \sin^{-1}\frac{u}{a}.$

180. $\displaystyle\int (u^2+a^2)^{1/2}\,du = \tfrac{1}{2}u(u^2+a^2)^{1/2} + \tfrac{1}{2}a^2 \sinh^{-1}\frac{u}{a}.$

181. $\displaystyle\int e^{au}\,du = \frac{e^{au}}{a}.$

182. $\displaystyle\int ue^{au}\,du = \frac{e^{au}}{a^2}(au-1).$

183. $\displaystyle\int u^m e^{au}\,du = \frac{u^m e^{au}}{a} - \frac{m}{a}\int u^{m-1} e^{au}\,du.$

184. $\displaystyle\int \frac{e^{au}\,du}{u^m} = \frac{1}{m-1}\left[-\frac{e^{au}}{u^{m-1}} + a\int \frac{e^{au}\,du}{u^{m-1}}\right].$

185. $\displaystyle\int a^{bu}\,du = \frac{a^{bu}}{b\log a}.$

186. $\displaystyle\int u^n a^u\,du = \frac{a^u u}{\log a} - \frac{na^u u^{n-1}}{(\log a)^2} + \frac{n(n-1)a^u u^{n-2}}{(\log a)^3} \ldots$

$$\frac{n(n-1)(n-2)\ldots 2.1\,a^u}{(\log a)^{n+1}}.$$

187. $\displaystyle\int \frac{a^u\,du}{u^n} = \frac{a^u}{n-1}\left[-\frac{1}{u^{n-1}} - \frac{\log a}{(n-2)u^{n-2}} - \frac{(\log a)^2}{(n-2)(n-3)u^{n-3}}\right.$

$$\left. - \ldots + \frac{(\log a)^{n-1}}{(n-2)(n-3)\ldots 2.1}\int \frac{a^u\,du}{u}\right].$$

188. $\displaystyle\int \frac{a^u\,du}{u} = \log u + u\log a + \frac{(u\log a)^2}{2.2!} + \frac{(u\log a)^3}{3.3!} + \ldots$

189. $\int \frac{du}{1 + e^u} = \log \frac{e^u}{1 + e^u}.$

190. $\int \frac{du}{a + be^{mu}} = \frac{1}{am}\left[mu - \log(a + be^{mu})\right].$

191. $\int \frac{du}{ae^{mu} + be^{-mu}} = \frac{1}{m(ab)^{1/2}} \tan^{-1}\left(e^{mu}\sqrt{\frac{a}{b}}\right).$

192. $\int \frac{du}{(a + be^{mu})^{1/2}} = \frac{1}{m\sqrt{a}}\Big[\log(\sqrt{a + be^{mu}} - \sqrt{a})$

$- \log(\sqrt{a + be^{mu}} + \sqrt{a})\Big].$

193. $\int \frac{ue^u\,du}{(1 + u)^2} = \frac{e^u}{1 + u}.$

194. $\int e^{au} \log u\,du = \frac{e^{au}\log u}{a} - \frac{1}{a}\int \frac{e^{au}\,du}{u}.$

195. $\int \log u\,du = u \log u - u.$

196. $\int u^m \log u\,du = u^{m+1}\left[\frac{\log u}{m + 1} - \frac{1}{(m + 1)^2}\right].$

197. $\int (\log u)^n\,du = u(\log u)^n - n\int (\log u)^{n-1}\,du.$

198. $\int u^m (\log u)^n\,du = \frac{u^{m+1}(\log u)^n}{m + 1} - \frac{n}{m + 1}\int u^m (\log u)^{n-1}\,du.$

199. $\int \frac{(\log u)^n\,du}{u} = \frac{(\log u)^{n+1}}{n + 1}.$

200. $\int \frac{du}{\log u} = \log(\log u) + \log u + \frac{(\log u)^2}{2.2!} + \frac{(\log u)^3}{3.3!} + \ldots\ldots$

201. $\int \frac{du}{(\log u)^n} = -\frac{u}{(n - 1)(\log u)^{n-1}} + \frac{1}{n - 1}\int \frac{du}{(\log u)^{n-1}}.$

202. $\int \frac{u^m\,du}{(\log u)^n} = -\frac{u^{m+1}}{(n - 1)(\log u)^{n-1}} + \frac{m + 1}{n - 1}\int \frac{u^m\,du}{(\log u)^{n-1}}.$

203. $\int \frac{u^m\,du}{\log u} = \int \frac{e^{-y}}{y}\,dy$, where $y = -(m + 1)\log u$.

204. $\int \frac{du}{u \log u} = \log(\log u).$

205. $\int \frac{du}{u(\log u)^n} = -\frac{1}{(n - 1)(\log u)^{n-1}}.$

206. $\int (a + bu)^m \log u\,du =$

$\frac{1}{b(m + 1)}\left[(a + bu)^{m+1}\log u - \int \frac{(a + bu)^{m+1}\,du}{u}\right].$

207. $$\int u^m \log(a+bu)\,du = \frac{1}{m+1}\left[u^{m+1}\log(a+bu) - b\int\frac{u^{m+1}\,du}{a+bu}\right].$$

208. $$\int\frac{\log(a+bu)\,du}{u} = \log a \,.\, \log u + \frac{bu}{a} - \frac{1}{2^2}\left(\frac{bu}{a}\right)^2 + \frac{1}{3^2}\left(\frac{bu}{a}\right)^3 - \cdots,$$
$$= \frac{1}{2}(\log bu)^2 - \frac{a}{bu} + \frac{1}{2^2}\left(\frac{a}{bu}\right)^2 - \frac{1}{3^2}\left(\frac{a}{bu}\right)^3 + \cdots.$$

209. $$\int\frac{\log u\,du}{(a+bu)^m} = \frac{1}{b(m-1)}\left[-\frac{\log u}{(a+bu)^{m-1}} + \int\frac{du}{u(a+bu)^{m-1}}\right].$$

210. $$\int\frac{\log u\,du}{a+bu} = \frac{1}{b}\log u\,.\,\log(a+bu) - \frac{1}{b}\int\frac{\log(a+bu)}{u}\,du.$$

211. $$\int(a+bu)\log u\,du = \frac{(a+bu)^2}{2b}\log u - \frac{a^2\log u}{2b} - au - \tfrac{1}{4}bu^2.$$

212. $$\int\frac{\log u\,du}{(a+bu)^{\frac{1}{2}}} = \frac{2}{b}\left[(\log u - 2)\sqrt{(a+bu)} + \sqrt{a}\log(\sqrt{a+bu}+\sqrt{a}) - \sqrt{a}\log(\sqrt{a+bu}-\sqrt{a})\right], \text{ if } a > 0,$$
$$= \frac{2}{b}\left[(\log u - 2)\sqrt{(a+bu)} + 2\sqrt{-a}\tan^{-1}\sqrt{\frac{a+bu}{-a}}\right], \text{ if } a < 0.$$

213. $$\int_0^\infty e^{-a^2u^2}\,du = \frac{\sqrt{\pi}}{2a} = \frac{1}{2a}\Gamma(\tfrac{1}{2}).$$

214. $$\int_0^\infty u^n e^{-au}\,du = \frac{\Gamma(n+1)}{a^{n+1}} = \frac{n!}{a^{n+1}}.$$

215. $$\int_0^\infty u^{2n} e^{-au^2}\,du = \frac{1\cdot3\cdot5\ldots(2n-1)}{2^{n+1}a^n}\sqrt{\frac{\pi}{a}}.$$

216. $$\int_0^\infty e^{-u^2-\frac{a^2}{u^2}}\,du = \frac{e^{-2a}}{2}\sqrt{\pi}. \qquad a > 0.$$

217. $$\int_0^\infty e^{-nu}\sqrt{u}\,du = \frac{1}{2n}\sqrt{\frac{\pi}{n}}.$$

218. $$\int_0^\infty \frac{e^{-nu}}{\sqrt{u}}\,du = \sqrt{\frac{\pi}{n}}. \qquad a > 0.$$

219. $$\int_0^\infty \frac{du}{\sinh(nu)} = \frac{\pi}{2n}.$$

220. $$\int_0^\infty \frac{u\,du}{\sinh(nu)} = \frac{\pi^2}{4n^2}.$$

221. $\int_0^{i\pi} \sinh(mu) \,.\, \sinh(nu)\, du = \int_0^{i\pi} \cosh(mu) \,.\, \cosh(nu)\, du$
$= 0$, if m is different from n.

222. $\int_0^{i\pi} \cosh^2(mu)\, du = -\int_0^{i\pi} \sinh^2(mu)\, du = \frac{i\pi}{2}.$

223. $\int_{-i\pi}^{+i\pi} \sinh(mu)\, du = 0.$

224. $\int_0^{i\pi} \cosh(mu)\, du = 0.$

225. $\int_{-i\pi}^{i\pi} \sinh(mu) \cosh(nu)\, du = 0.$

226. $\int_0^{i\pi} \sinh(mu) \cosh(mu)\, du = 0.$

227. $\int_0^1 \frac{\log u}{1-u}\, du = -\frac{\pi^2}{6}.$

228. $\int_0^1 \frac{\log u}{1+u}\, du = -\frac{\pi^2}{12}.$

229. $\int_0^1 \frac{\log u}{1-u^2}\, du = -\frac{\pi^2}{8}.$

230. $\int_0^1 \log\left(\frac{1+u}{1-u}\right) \cdot \frac{du}{u} = \frac{\pi^2}{4}.$

231. $\int_0^1 \frac{\log u\, du}{(1-u^2)^{1/2}} = -\frac{\pi}{2} \log 2.$

232. $\int_0^1 \frac{(u^p - u^q)\, du}{\log u} = \log \frac{p+1}{q+1}$, if $p + 1 > 0$, $q + 1 > 0$.

233. $\int_0^1 (\log u)^n\, du = (-1)^n \,.\, n!.$

234. $\int_0^1 \left(\log \frac{1}{u}\right)^{1/2} du = \sqrt{\frac{\pi}{2}}.$

235. $\int_0^1 \left(\log \frac{1}{u}\right)^n du = n!.$

236. $\int_0^1 \frac{du}{\left(\log \frac{1}{u}\right)^{1/2}} = \sqrt{\pi}.$

237. $\int_0^1 u^m \log\left(\frac{1}{u}\right)^n du = \frac{\Gamma(n+1)}{(m+1)^{n+1}}$, if $m + 1 > 0$, $n + 1 > 0$.

238. $\int_0^\infty \log\left(\frac{e^u+1}{e^u-1}\right) du = \frac{\pi^2}{4}.$

G.—FORMULAS FOR THE SOLUTION OF PSEUDO-SPHERICAL TRIANGLES.

a.—Right Triangles.

$$\sin A = \frac{\cot \Pi(a)}{\cot \Pi(c)} = \frac{\sinh a}{\sinh c}.$$

$$\cos A = \frac{\cos \Pi(b)}{\cos \Pi(c)} = \frac{\tanh b}{\tanh c}.$$

$$\cos A = \frac{\sin B}{\sin \Pi(a)} = \sin B \cosh a.$$

$$\cot A = \frac{\cot \Pi(b)}{\cos \Pi(a)} = \frac{\sinh b}{\tanh a}$$

$$\cos B = \frac{\cos \Pi(a)}{\cos \Pi(c)} = \frac{\tanh a}{\tanh c}.$$

$$\cos B = \frac{\sin A}{\sin \Pi(b)} = \sin A \cosh b.$$

$$\sin B = \frac{\cot \Pi(b)}{\cot \Pi(c)} = \frac{\sinh b}{\sinh c}.$$

$$\cot B = \frac{\cot \Pi(a)}{\cos \Pi(b)} = \frac{\sinh a}{\tanh b}.$$

$$\tan A \tan B = \sin \Pi(c) = \sin \Pi(a) \sin \Pi(b).$$
$$= \operatorname{sech} c = \operatorname{sech} a \operatorname{sech} b.$$

b.—Oblique Triangles.

The general relations are:

$$\cosh a = \cosh b \cosh c - \sinh b \sinh c \cos A.$$
$$\sin A \sinh b = \sin B \sinh a.$$
$$\coth a \sinh b = \cosh b \cos C + \sin C \cot A.$$
$$\cos A = -\cos B \cos C + \sin B \sin C \cosh a.$$

Forti solves the six typical cases in the following manner:

CASE 1.—Given a, b, c. Put $2p = a + b + c$. Then,

$$\tan \tfrac{1}{2} A = \sqrt{\frac{\sinh(p-b) \,.\, \sinh(p-c)}{\sinh p \sinh(p-a)}}.$$

The conditions are $a < b + c$; $b < a + c$; and $c < a + b$.

CASE 2.—Given a, b, A. Draw the geodetic line CD perpendicular to AB.

Then $a > CD$; $\frac{\sinh b \sin A}{\sinh a} < 1$; $\cot \frac{1}{2} C > 0$; and $\tanh \frac{1}{2} c > 0$.

$$\sin B = \frac{\sinh b \sin A}{\sinh a}$$

$$\cos \tfrac{1}{2} C = \frac{\tan \tfrac{1}{2}(A - B) \sinh \tfrac{1}{2}(a + b)}{\sinh \tfrac{1}{2}(a - b)}.$$

$$\tanh \tfrac{1}{2} c = \frac{\tanh \tfrac{1}{2}(a - b) \sin \tfrac{1}{2}(A + B)}{\sin \tfrac{1}{2}(A - B)}.$$

CASE 3.—Given a, b, C. $2\Delta = \pi - (A + B + C)$.

$$\tan \tfrac{1}{2}(A + B) = \cot \tfrac{1}{2} C \frac{\cosh \tfrac{1}{2}(a - b)}{\cosh \tfrac{1}{2}(a + b)}.$$

$$\tan \tfrac{1}{2}(A - B) = \cot \tfrac{1}{2} C \frac{\sinh \tfrac{1}{2}(a - b)}{\sinh \tfrac{1}{2}(a + b)}.$$

$$\tanh \tfrac{1}{2} c = \sqrt{\frac{-\sin \Delta \sin (\Delta + C)}{\sin (\Delta + A) \sin (\Delta + B)}}$$

CASE 4.—Given A, B, c. $A + B < \pi$ and $DBC < DBG$. The angle DBG is the angle between the geodetic DB drawn perpendicular to AC and the geodetic BG drawn parallel to AC.

$$\tanh \tfrac{1}{2}(a + b) = \tanh \tfrac{1}{2} c \frac{\cos \tfrac{1}{2}(A - B)}{\cos \tfrac{1}{2}(A + B)}.$$

$$\tanh \tfrac{1}{2}(a - b) = \tanh \tfrac{1}{2} c \frac{\sin \tfrac{1}{2}(A - B)}{\sin \tfrac{1}{2}(A + B)}.$$

$$\tan \tfrac{1}{2} C = \sqrt{\frac{\sinh (p - a) \sinh (p - b)}{\sinh p \sinh (p - c)}}$$

CASE 5.—Given A, B, a. $a > CD$ and $A + B < \pi$.

Solve the two right triangles formed by the geodetic line CD drawn perpendicular to AB.

CASE 6.—Given A, B, C. $A + B + C < \pi$.

$$\tanh \tfrac{1}{2} a = \sqrt{\frac{-\sin \Delta \sin (\Delta + A)}{\sin (\Delta + B) \sin (\Delta + C)}}$$

H.—FORMULAS FOR THE SOLUTION OF THE CUBIC[1].

If a cubic equation is given in the form

$$z^3 + az^2 + bz + c = 0,$$

it can be reduced by the substitution $z = x - \dfrac{a}{3}$ to the simpler form

$$x^3 + px + q = 0.$$

[1] Taken from Des Ingenieurs Taschenbuch der Hütte, Berlin, 18th edition.

CASE 1.—When $x^3 + px \pm q = 0$; p and q positive. Compute the auxiliary variable u from $\sinh u = \dfrac{\frac{1}{2} q}{\frac{1}{3} p \left(\frac{1}{3} p\right)^{1/2}}$; then the roots are

$$x_1 = \mp 2 \sqrt{\tfrac{1}{3} p} \sinh \tfrac{1}{3} u.$$
$$x_2 = \pm \sqrt{\tfrac{1}{3} p} \sinh \tfrac{1}{3} u + i \sqrt{p} \cosh \tfrac{1}{3} u.$$
$$x_3 = \pm \sqrt{\tfrac{1}{3} p} \sinh \tfrac{1}{3} u - i \sqrt{p} \cosh \tfrac{1}{3} u.$$

CASE 2.—When $x^3 - px \pm q = 0$; p and q positive. $(\frac{1}{3} p)^3 < (\frac{1}{2} q)^2$. Compute u from $\cosh u = \dfrac{\frac{1}{2} q}{\frac{1}{3} p \left(\frac{1}{3} p\right)^{1/2}}$; then the roots are

$$x_1 = \mp 2 \sqrt{\tfrac{1}{3} p} \cosh \tfrac{1}{3} u.$$
$$x_2 = \pm \sqrt{\tfrac{1}{3} p} \cosh \tfrac{1}{3} p + i \sqrt{p} \sinh \tfrac{1}{3} u.$$
$$x_3 = \pm \sqrt{\tfrac{1}{3} p} \cosh \tfrac{1}{3} u - i \sqrt{p} \sinh \tfrac{1}{3} u.$$

CASE 3.—When $x^3 - px \pm q = 0$; p and q positive. $(\frac{1}{3} p)^3 > (\frac{1}{2} q)^2$. Compute the angle u from $\cos u = \dfrac{\frac{1}{2} q}{\frac{1}{3} p \left(\frac{1}{3} p\right)^{1/2}}$; then the roots are

$$x_1 = \mp 2 \sqrt{\tfrac{1}{3} p} \cos \tfrac{1}{3} u.$$
$$x_2 = \mp 2 \sqrt{\tfrac{1}{3} p} \cos \left(\tfrac{1}{3} p + 120^\circ\right).$$
$$x_3 = \mp 2 \sqrt{\tfrac{1}{3} p} \cos \left(\tfrac{1}{3} u + 240^\circ\right).$$

CASE 4.—When $x^3 - px \pm q = 0$; p and q positive. $(\frac{1}{3} p)^3 = (\frac{1}{2} q)^2$.

$$x_1 = \mp 2 \sqrt{\tfrac{1}{3} p}.$$
$$x_2 = x_3 = \pm \sqrt{\tfrac{1}{3} p}.$$

For applications of hyperbolic and circular functions to the solution of the cubic whose coefficients are general (*i. e.*, real or complex), see a brief paper by Mr. W. D. Lambert in *American Mathematical Monthly* for April, 1906.

GEOMETRICAL ILLUSTRATIONS OF HYPERBOLIC FUNCTIONS.

The algebraic relationship of the hyperbolic functions to the circular functions has been discussed in the section on definitions and formulas. A close relationship also exists between the elliptic functions and the hyperbolic functions. Thus it may be shown that the elliptic integral of the first kind,

$$u = \int \frac{d\phi}{\sqrt{1 - k^2 \sin^2 \phi}}$$

in which k is the modulus and ϕ the amplitude, reduces to $u = gd^{-1}\phi$ when $k = 1$. The elliptic functions thus degenerate into the hyperbolic functions when the modulus is equal to unity. A case in point is the elastica, the equation of which takes the form of an elliptic integral, excepting when the modulus is unity. It then reduces to the two equations

$$= u \quad 2 \tanh u;\ \frac{y}{a} = \frac{2}{\cosh u},$$

which is a syntractrix described by the free end of a rod whose middle point traces out the tractory.[1]

Ligowski gives the following easy geometrical method of demonstrating the relations between the hyperbolic and circular functions. Let the equation of the circle of unit radius be

$$x^2_c + y^2_c = 1,$$

and call u_c the arc of this circle from the positive x axis to the point $x_c y_c$. Then, of course, the circle may be represented by the two equations

$$x_c = \cos u_c;\ y_c = \sin u_c.$$

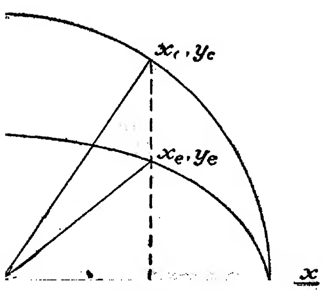

FIG. 4.

Now, the area of the circular sector, whose chord is $2y_c$, is $\frac{2.u_c.1}{2} = u_c$, so that x_c and y_c may be regarded as the cosine and sine of a sector u_c. The ellipse may be derived from the unit circle by multiplying the ordinates y_c by b. Hence, in the ellipse, the area of the sector subtended by the chord $2y_e$ is, say, u_e and $u_e = bu_c$.

[1] If in these equations m is substituted for 2 they represent any syntractrix. The two equations, with this substitution, can be combined to the following:

$$\frac{(au - x)^2}{a^2 m^2} + \frac{y^2}{a^2 m^2} = 1,$$

showing that the curve is traced by a point on a circle of radius am whose center is in motion. It is noteworthy that if in this equation the hyperbolic sector u is replaced by a circular sector ϕ, the new equation represents a prolate or a curtate cycloid, or better the syncycloid. Thus the syntractrix may be considered as a syncycloid with an infinite period.

Thus

$$x_c = \cos u_c = \cos \frac{u_e}{b},$$

$$y_c = \sin u_c = \frac{y_e}{b} = \sin \frac{u_e}{b},$$

so that for the ellipse,

$$x^2_e + \frac{y^2_e}{b^2} = 1.$$

$$x_c = x_e = \cos \frac{u_e}{b}\ ;\ y_e = b \sin \frac{u_e}{b}.$$

The equation

$$x^2 - y^2 = 1$$

represents an equilateral hyperbola, and if u is the area of the hyperbolic sector whose chord is $2y$, then there can be no objection to writing

$$x = \cosh u\ ;\ y = \sinh u,$$

where cosh and sinh are functions whose nature is still to be determined. The most evident relation is

$$\cosh^2 u - \sinh^2 u = 1.$$

Now if $i = \sqrt{-1}$, the hyperbola may be written

$$x^2 + \frac{y^2}{i^2} = 1,$$

which is an ellipse whose major axis is unity and whose minor axis is i. Comparing this with the ellipse discussed above, it appears at once that

$$x = \cosh u = \cos \frac{u}{i},$$

$$y = \sinh u = i \sin \frac{u}{i},$$

or, in an equivalent form,

$$\cosh u = \cos iu\ ;\ \sinh u = -i \sin iu,$$
$$\cosh iu = \cos u\ ;\ \sinh iu = i \sin u.$$

The investigation of cosh u and sinh u can be completed in various ways; for example, by writing out the series for $\cos iu$ and $-i \sin iu$ and showing that their sum or difference is $e^{\pm u}$.

The geometrical properties of the hyperbolic functions themselves are commonly discussed in reference to the equilateral hyperbola. They could also be derived from the geometry of the ellipse without reference to the hyperbola; but a more perspicuous method seems to be to study the relations of these functions to both curves at the same time.[1]

In any ellipse,

$$\frac{x^2}{\beta^2} + \frac{y^2}{\alpha^2} = 1,$$

[1] See Bull. Geol. Soc. Am., vol. 2, 1891, p. 49, and Am. Jour. Sci., vol. 46, 1893, p. 337.

the area $\alpha\,\beta$ may be chosen as the unit area, so that the equation of the curve becomes

$$\alpha^2\,x^2 + \frac{y^2}{\alpha^2} = 1.$$

By varying the value of α in this equation a family of ellipses is obtained each of area π, all with the same center and all with axes lying in the axes of coördinates. The envelope of this system of curves is the hyperbola $xy = \frac{1}{2}$, and this may be conceived as generated by the motion of a single point. The coördinates of the point P_1, at which the hyperbola is tangent to the ellipse, are

$$x_1 = \frac{1}{\sqrt{2}\,\alpha} \qquad y_1 = \frac{\alpha}{\sqrt{2}};$$

and the coördinates of the point c at which the hyperbola is tangent to the unit circle, are

$$x = y = \frac{1}{\sqrt{2}}.$$

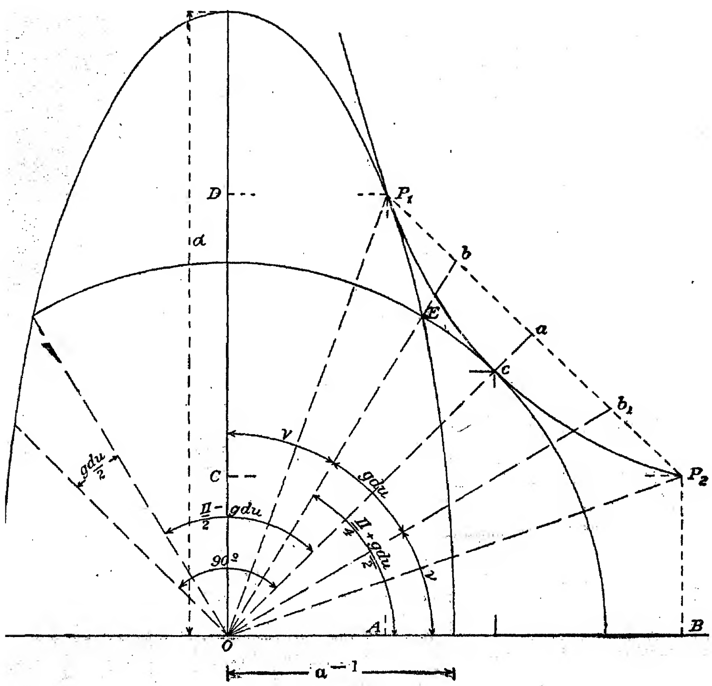

FIG. 5.

If the hyperbola is conceived as generated by the point c in moving from its original position to P_1 (or as a "line of flow"), its radius vector sweeps over an hyperbolic sector ocP_1. If this area is called $\frac{u}{2}$, then by a well-known formula,

$$du = x\,dy - y\,dx,$$

and because $xy = \frac{1}{2}$,

$$du = \tfrac{1}{2}\left(\frac{dy}{y} - \frac{dx}{x}\right).$$

Since no integration constant is required,

$$u = \tfrac{1}{2}\log\frac{y_1}{x_1} = \tfrac{1}{2}\log\alpha^2 \text{ or } \alpha = e^u.$$

The area u is the sector $oP_1\,cP_2$, where the coördinates of P_2 are $x_2 = y_1$, and $y_2 = x_1$. It is noteworthy that two other areas, $AP_1\,cP_2\,B$ and $CDP_1\,cP_2$, have this same value, for evidently

$$\int_{x_1}^{x_2} y\,dx = \int_{y_1}^{y_2} x\,dy = \log\alpha = u.$$

The length of the chord $P_1\,P_2$ is

$$\sqrt{(x_2 - x_1)^2 + (y_1 - y_2)^2} = \alpha - \alpha^{-1},$$

and half of this, or $P_1\,a$, is the hyperbolic sine which may evidently be put in the form

$$\sinh u = \frac{e^u - e^{-u}}{2}.$$

Since the curve $P_1\,cP_2$ is an hyperbola,

$$oa^2 - aP_1^2 = 1,$$

and therefore

$$oa = \sqrt{1 - \sinh^2 u} = \frac{e^u + e^{-u}}{} = \cosh u.$$

The diameters connecting the points of intersection of the unit circle and the ellipse, whose axes are α and α^{-1}, may be called the isocyclic diameters of the ellipse, because the circle and the ellipse have the same area. These diameters are not conjugate. If the ellipse is conceived as the section on the greatest and least axes of an ellipsoid of unit volume, the isocyclic diameters are the traces of the circular sections of the ellipsoid. The coördinates of one of the points of intersection, say E, are

$$x = \frac{1}{\sqrt{\alpha^2 + 1}};\ y = \frac{\alpha}{\sqrt{\alpha^2 + 1}},$$

and therefore the angle ν, which the vector oE makes with the major axis of the ellipse, is given by the relation

$$\tan\nu = \alpha^{-1} = e^{-u},$$

and it follows that

$$\tan\left(\frac{\pi}{2} - 2\nu\right) = \tfrac{1}{2}(\cot\nu - \tan\nu) = \sinh u.$$

This angle $\left(\frac{\pi}{2} - 2\nu\right)$ is *gd* u, or the gudermannian of u, so that in any

ellipse whatever the angle made by any line parallel to one isocyclic diameter with a perpendicular on the other isocyclic diameter is the gudermannian of the natural logarithm of the semi-major axis, this being expressed in terms of the isocyclic radius, which in the general case is the square root of the product of the semiaxes.[1] In the diagram the gudermannian bob_1 is shown as bisected by the axis of the hyperbola, and it is worth remarking that if the ellipse were to be distorted into a circle by compressing the major axis and elongating the minor axis, the line ob would be brought into coincidence with ob_1, so that $gd\ u$ can be defined as the angle through which an isocyclic diameter has swept when the ellipse has been derived from a circle by irrotational plane strain.

The angle $45° + \frac{gd\ u}{2}$ which occurs in the formula for meridional parts is the angle made by either isocyclic diameter of the ellipse with the minor axis, and the tangent of this angle is the semi-major axis α.

The twofold relations of the hyperbolic functions to the hyperbola and the ellipse are illustrated in a somewhat different manner in figure 6.

Here the curve $p_1\, c\, p_2$ is an arc of an hyperbola $y^2 - x^2 = 1$. If the area of the sector $o\, p_1\, c\, p_2$ is called u, $a\, p_1 = \sinh u$ and $oa = \cosh u$. Make $bc = p_1\, a$ and draw the associated ellipse shown in the diagram. Then the angle $boc = gd\, u$; $bo = \cosh u$ and

$$\tan gd\, u = \sinh u$$
$$\sec gd\, u = \cosh u$$
$$\sin gd\, u = \tanh u.$$

The ellipse has corresponding properties. Since the gudermannian is the angle between either isocyclic diameter and a line perpendicular to the other, the line ob may be regarded as coinciding with one isocyclic diameter and the axis of abscissas with the other. The major axis of the ellipse then bisects

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[1] The isocyclic diameter used in this illustration of hyperbolic functions lies in the circular section of a shear ellipsoid, or an ellipsoid in which the mean axis is a mean proportional between the greatest and least axes. The position of the circular section of the general ellipsoid is also readily expressed in terms of hyperbolic functions. Let the equation of the ellipsoid be

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1;\ a > b > c.$$

If $\frac{b}{c} = \cosh u_1$, and $\frac{a}{b} = \cosh u_2$,

the angle ν which the circular section makes with the greatest axis is given by

$$\tan \nu = \frac{1}{i} \tanh i\nu = \frac{b^{-2} - a^{-2}}{c^{-2} - b^{-2}} = \frac{\tanh u_1}{\sinh u_2}.$$

If $u_1 = u_2$ and $\frac{a}{b} = \alpha$ this expression reduces to $\tan \nu = \alpha^{-1}$, or to the case of the shear ellipsoid.

the angle $90° - gd\,u$, its magnitude is $2\,e^u$, and the equation of the ellipse is

$$x^2 + 4\,xy \tan gd\,u + y^2 (4 \tan^2 gd\,u + 1) = 1.$$

By varying the value of $\tan gd\,u$ (or $\sinh u$) a system of ellipses is obtained whose envelopes are $y = \pm 1$, so that if any one of the ellipses is supposed to be derived from the circle by distortion, the process is that generally known as "shearing motion or scission."

If the points in the circle are sought which correspond to the points on the

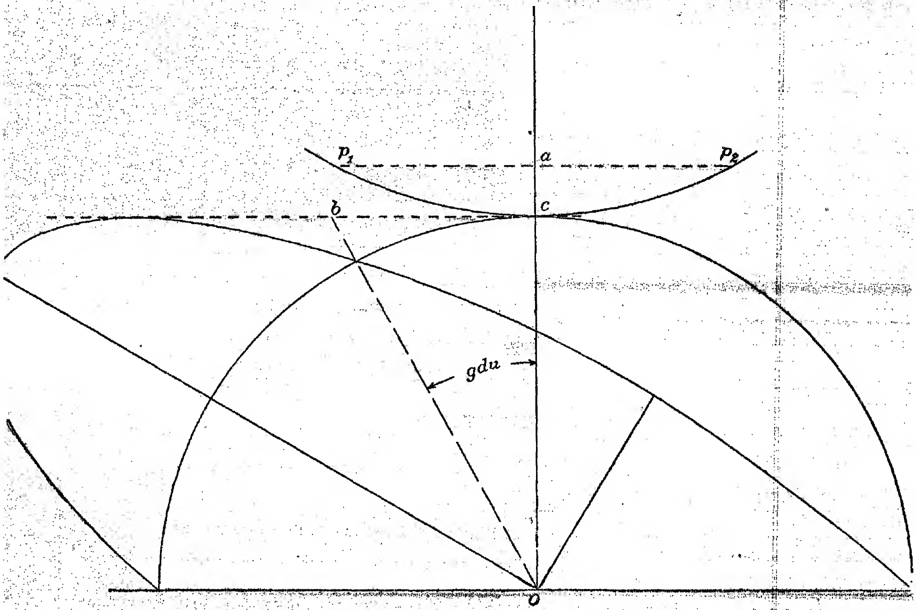

FIG. 6.

major axis of the ellipsoid, it will be found that the angle between the two positions (the angle of rotation) is equal to the gudermannian.[1]

If instead of the horizontal, the vertical line in figure 6 had been taken as coinciding with the isocyclic diameter of the ellipse, the result would have been the discovery of a system of ellipses whose envelopes are $x = \pm 1$, similar in all respects excepting orientation to that discussed.

[1] Love's Treatise on the Theory of Elasticity, vol. 1, p. 43.

METHODS OF INTERPOLATION.

It is not easy to describe the use of the tables which follow without some notes on the methods of interpolation with reference to which they are arranged. In all of them the argument advances by equal increments, each equal, say, to ω. It is required to find a value of the function F intermediate between two tabulated values, F_0 and F_1, corresponding to a fractional value of the argument or to $n\omega$, where n is always less than unity, and preferably less than one-half.

Let F_n be the value of the function to be determined; let F_{-1} and F_{-2} be tabulated values of F immediately preceding F_0, and let F_1, F_2 be values immediately following F_0. Denote $F_1 - F_0$ by a_1, other first differences (Δ') being similarly represented. If also $a_2 - a_1 = b_1$, $b_1 - b_0 = c_1$, etc., the whole system of functions and differences is shown in the following schedule:[1]

F	Δ'	Δ''	Δ'''	Δ^{iv}	Δ^{v}	Δ^{vi}
F_{-2}		b''		d''		f''
	a''		c''		e''	
F_{-1}		b'		d'		f'
	a'		c'		e'	
F_0		b_0		d_0		f_0
	a_1		c_1		e_1	
F_1		b_1		d_1		f_1
	a_2		c_2		e_2	
F_2		b_2		d_2		f_2

The most familiar formula of interpolation is due to Newton, and in the above notation it may be written thus:

$$F_n - F_0 = na_1 + \frac{n(n-1)}{2!} b_1 + \frac{n(n-1)(n-2)}{3!} c_2$$

$$\frac{n(n-1)(n-2)(n-3)}{4!} d_2 + \ldots$$

[1] The notation and general outline of treatment here presented closely follow Mr. Herbert L. Rice's treatise, Theory and Practice of Interpolation, 1899. The Nichols Press, Lynn, Massachusetts.

The coefficients are those of the binomial theorem. This formula is applicable to the first intervals of a series, which is not the case with any other mode of interpolation. It may also be adapted to the last intervals by substituting $-n$ for n and a', b', c'', d'', . . . for a_1, b_1, c_2, d_2, ... In systematic interpolation, such as is involved in the construction of tables, it is usual to employ the more rapidly converging formulas of Stirling or Bessel; but when a computing machine and a table of products are available it is sometimes less laborious to compute an extra term of Newton's formula than to calculate and apply the mean differences called for by the other methods. Both Stirling's and Bessel's formulas can be derived from Newton's by known relations between the several differences.

In Stirling's formula the mean of the first differences next preceding and following F_0 is made use of instead of only the latter, as in Newton's formula. The third differences are similarly treated, so that a_0, c_0, etc., being new quantities, are defined by

$$\frac{a' + a_1}{2} = a_0\,; \quad \frac{c' + c_1}{2} = c_0, \text{ etc.}$$

These mean values are used in conjunction with the even differences on the same horizontal line with F_0 in the schedule, and Stirling's formula is

$$F_n - F_0 = na_0 + \frac{n^2}{2!}\,b_0 + \frac{n\,(n^2 - 1)}{3!}\,c_0 + \frac{n^2\,(n^2 - 1)}{4!}\,d_0 + \frac{n\,(n^2 - 1)\,(n^2 - 4)}{5!}\,e_0 + \ldots.$$

To interpolate backward it is only needful to substitute $-n$ for n.

In Bessel's formula use is made of mean differences of the even orders, and if b, d, etc., are these means they are defined in terms of the scheduled differences, thus:

$$\frac{b_0 + b_1}{2} = b\,; \quad \frac{d_0 + d_1}{2} = d, \text{ etc.}$$

They are used in conjunction with the simple odd differences a_1, c_1, etc., and the formula is

$$F_n - F_0 = na_1 + \frac{n\,(n-1)}{2\,!}\,b + \frac{n\,(n-1)\,(n-\frac{1}{2})}{3\,!}\,c_1 + \frac{(n+1)\,n\,(n-1)\,(n-2)}{4\,!}\,d + \frac{(n+1)\,n\,(n-1)\,(n-2)\,(n-\frac{1}{2})}{5\,!}\,e_1 + \ldots.$$

When $n = \frac{1}{2}$, or for interpolation to the middle of an interval, the coefficient of c_1 vanishes and $F_n - F_0$ is independent of third differences, which is clearly a great advantage. In general this method is very advantageous when n approaches one-half, while Stirling's formula is preferred for small values of n.

When Bessel's formula is used for backward interpolation, it may be written

$$F_{-n} - F_0 = -na' + \frac{n(n-1)}{2!}\left(\frac{b_0 + b'}{2}\right) - \frac{n(n-1)(n-\frac{1}{2})}{3!}c' + \ldots\ldots,$$

n being taken as positive.

A distinct method of interpolation is founded directly upon Taylor's theorem. If F_0' F_0'', etc., are the successive derivatives of F_0, and ω is the constant increment of the argument, this fundamental theorem may be written

$$F_n - F_0 = n\,\omega\,F_0' + \frac{n^2\,\omega^2\,F_0''}{2\,!} + \frac{n^3\,\omega^3\,F_0'''}{3\,!} + \frac{n^4\,\omega^4\,F_0^{iv}}{4\,!} + \ldots \quad \ldots (a),$$

and this becomes an interpolation formula when the derivatives are expressed in terms of the differences. This is readily accomplished to any degree of exactness whenever the differences become rigorously or sensibly constant at some particular order and the tabular interval is small relatively to the period of the function. To find the numerical values of the derivatives it is not necessary that the analytical expression of the function should be known; for, rearranging the terms of the formula of Bessel and Stirling according to ascending powers of n and comparing coefficients,

(Bessel.) (Stirling.)

$$F_0' = \frac{1}{\omega}(a_1 - \tfrac{1}{2}b + \tfrac{1}{12}c_1 + \tfrac{1}{12}d - \tfrac{1}{120}e_1 - \ldots) = \frac{1}{\omega}(a_0 - \tfrac{1}{6}c_0 + \tfrac{1}{30}e_0 - \ldots)$$

$$F_0'' = \frac{1}{\omega^2}(b - \tfrac{1}{2}c_1 - \tfrac{1}{12}d + \tfrac{1}{24}e_1 + \ldots) \qquad = \frac{1}{\omega^2}(b_0 - \tfrac{1}{12}d_0 + \ldots)$$

$$F_0''' = \frac{1}{\omega^3}(c_1 - \tfrac{1}{2}d + 0\ldots) \qquad = \frac{1}{\omega^3}(c_0 - \tfrac{1}{4}e_0 + \ldots)$$

$$F_0^{iv} = \frac{1}{\omega^4}(d - \tfrac{1}{2}e_1 - \ldots) \qquad = \frac{1}{\omega^4}(d_0 - \ldots)$$

$$F_0^{v} = \frac{1}{\omega^5}(e_1 - \ldots) \qquad = \frac{1}{\omega^5}(e_0 - \ldots).$$

Hence, to compute the first derivative, say from Stirling's formula, when the 6th differences and $\frac{1}{30}$ of the mean of the corresponding third differences are negligible, it is only needful to take the mean of the first differences preceding and following the tabular value of the function, subtract from it one-sixth ($\frac{1}{6}$) of the mean of the corresponding third differences, and divide the result by ω.

Newton's formula gives for arguments near the beginning of the series of tabular values:

$$F_0' = \frac{1}{\omega}(a_1 - \tfrac{1}{2}b_1 + \tfrac{1}{3}c_2 - \tfrac{1}{4}d_2 + \tfrac{1}{5}e_3 - \ldots)$$

$$F_0'' = \frac{1}{\omega^2}(b_1 - c_2 + \tfrac{11}{12}d_2 - \tfrac{5}{6}e_3 + \ldots)$$

$$F_0''' = \frac{1}{\omega^3}(c_2 - \tfrac{3}{2}d_2 + \tfrac{7}{4}e_3 - \ldots)$$

$$F_0^{iv} = \frac{1}{\omega^4}(d_2 - 2\,e_3 + \ldots)$$

$$F_0^{v} = \frac{1}{\omega^5}(e_3 - \ldots),$$

and for arguments near the end of the series of tabular values,

$$F_0' = \frac{1}{\omega}(a' + \tfrac{1}{2}\,b' + \tfrac{1}{3}\,c'' + \tfrac{1}{4}\,d'' + \tfrac{1}{5}\,e''' + \ldots)$$

$$F_0'' = \frac{1}{\omega^2}(b' + c'' + \tfrac{11}{12}\,d'' + \tfrac{5}{6}\,e''' + \ldots)$$

$$F_0''' = \frac{1}{\omega^3}(c'' + \tfrac{3}{2}\,d'' + \tfrac{7}{4}\,e''' + \ldots)$$

$$F_0^{iv} = \frac{1}{\omega^4}(d'' + 2\,e''' + \ldots)$$

$$F_0^{v} = \frac{1}{\omega^5}(e''' + \ldots).$$

The differences of the derivatives may of course be found and discussed in the same manner as those of any other function, and the higher derivatives, F_n'', F_n''', ... can be expressed in terms of the differences of F_n'. To distinguish the differences of F' from those of F, they may be denoted by Greek letters, and the notation is exhibited in the following scheme:

$$\begin{array}{lllllll}
F'_{-2} & & & & & & \\
 & \alpha & & & & & \\
F'_{-1} & & \beta' & & & & \\
 & \alpha' & & \gamma' & & & \alpha_1 + \alpha' = 2\,\alpha_0 \\
F_0' & & \beta_0 & & \delta_0 & & \\
 & \alpha_1 & & \gamma_1 & & & \gamma_1 + \gamma' = 2\,\gamma_0 \\
F_1' & & \beta_1 & & & & \\
 & \alpha_2 & & & & & \\
F_2' & & & & & &
\end{array}$$

Using Stirling's formulæ, page xxxvi, the successive derivatives inclusive of fifth differences are now

$$F_0'' = \frac{1}{\omega}(\alpha_0 - \tfrac{1}{6}\,\gamma_0);\; F_0''' = \frac{1}{\omega^2}(\beta_0 - \tfrac{1}{12}\,\delta_0);\; F_0^{iv} = \frac{1}{\omega^3}(\gamma_0);\; F_0^{v} = \frac{1}{\omega^4}(\delta_0);$$

and the interpolation formula may be written

$$F_n = F_0 + n\,\omega\,F_0' + \frac{n^2\,\omega}{2\,!}(\alpha_0 - \tfrac{1}{6}\,\gamma_0) + \frac{n^3\,\omega}{3\,!}(\beta_0 - \tfrac{1}{12}\,\delta_0) + \frac{n^4\,\omega}{4\,!}\,\gamma_0 + \frac{n^5\,\omega}{5\,!}\,\delta_0;$$

or, neglecting fifth differences,

$$F_n = F_0 + n\,\omega\left[F_0' + \frac{n}{2}\,\alpha_0 + \frac{n^2}{6}\,\beta_0 + \frac{n}{12}\left(\frac{n^2}{2} - 1\right)\gamma_0\right],$$

and for backward interpolation

$$F_{-n} = F_0 - n\,\omega\left[F_0' - \frac{n}{2}\,\alpha_0 + \frac{n^2}{6}\,\beta_0 - \frac{n}{12}\left(\frac{n^2}{2} - 1\right)\gamma_0\right].$$

In the tables which follow, the first derivatives multiplied by ω are tabulated in units of the last decimal place of the tabulated function (except Table VII), and the remaining quantities required in the computation can be found by mere inspection. The higher order of differences will be needed only for a very few arguments at the beginning or end of those tabular values whose numerical magnitudes approach 0 or ∞. For the remaining arguments it will be found that the $\frac{1}{48}$ part of the second difference of $\omega F_n'$ is not great enough to influence the result, and it is therefore sufficient to use

$$F_n = F_0 + n\,\omega\,(F_0' + \frac{n}{2}\,a_0)$$
$$F_{-n} = F_0 - n\,\omega\,(F_0' - \frac{n}{2}\,a_0) \qquad (b),$$

ωa_0 being the mean first difference of $\omega F'$ corresponding to F_0. This formula is rigorous when third differences are zero. In most cases $\frac{n\,\omega\,a_0}{2}$ can be found mentally, and since $\omega\left(F_0' + \frac{n}{2}\,a_0\right)$ is here to be regarded as an interpolated value of $\omega F_0'$, no confusion can arise as to the sign of the correction. It thus becomes almost as easy to include ωa_0 in the computation as to omit it. A convenient rule is: Find by linear interpolation the value $\omega F'$ for one-half the interval $\left(\frac{n}{2}\right)$; multiply this interpolated value by the entire interval (n) and apply the product to the tabular value of the function, either positively or negatively, according as the function is increasing or decreasing. To illustrate the application of this rule, find $\log_{10}$ sinh 0.00304. In this case $n = 0.4$ and the table gives

$$F_0 = 7.47712\,;\quad \omega F_0' = 1447{,}7\,;\quad \omega a_0 = -48{,}3,$$

the last two quantities being expressed in units of the fifth decimal place. Interpolating $\omega F'$ linearly for one-half the interval,

$$\omega F'_{\frac{n}{2}} = \omega\,(F_0' + \frac{n}{2}\,a_0) = 1447{,}7 - 0.2 \times 48{,}3 = 1438{,}0\,;$$

multiplying this value by n and adding the result to the tabular value of the function, there results

$$F_n = 1438{,}0 \times 0.4 + 7.47712 = 7.48287.$$

The corresponding difference formula (Bessel's) is

$$F_n = F_0 + n\left[a_1 - \frac{(1-n)}{2}\,b\right].$$

The derivative formula (b) with two terms has the advantage of being much more convenient than the difference formula, while the accuracy of the two is the same (five-eighths of a unit) when the derivatives are tabulated to the

same order of decimal as the function. In the case of linear interpolation, however, it is in general more accurate to use the differences, the maximum error of the difference formula being one-half of a unit and that of the derivative formula three-fourths of a unit in the next succeeding decimal place. The accuracy of the two formulas is the same when the next succeeding decimal of the derivative is tabulated. The error of the derivative formula is then simply the error of the tabular value, while the error of the difference formula may be $=$, $>$ or $<$ than that of the tabular value, but is never greater than one-half of a unit.

Interpolation formulas which are applicable only to a single function are rarely advantageous, because as much time is often consumed in looking them up as is saved by employing them; but some formulas applicable to hyperbolic functions are so simple that when once suggested they can hardly be forgotten. Thus, Taylor's theorem gives at once

$$\cosh(u + n\omega) - \cosh u = n\omega \sinh u + \frac{n^2\omega^2}{2!}\cosh u + \frac{n^3\omega^3}{3!}\sinh u + \ldots,$$

and the form for the sine is of course similar. Again, when, as here, the cosine is tabulated with an argument in terms of radians,

$$\cos(u + n\omega) - \cos u = -n\omega \sin u - \frac{n^2\omega^2}{2!}\cos u + \frac{n^3\omega^3}{3!}\sin u + \ldots,$$

the series for the sine being similar.

So, too,

$$\log_e(u + n\omega) - \log_e u = \log_e\left(1 + \frac{n\omega}{u}\right)$$

$$= \frac{n\omega}{u} - \tfrac{1}{2}\frac{n^2\omega^2}{u^2} + \tfrac{1}{3}\frac{n^3\omega^3}{u^3} - \tfrac{1}{4}\frac{n^4\omega^4}{u^4} + \ldots \qquad \left(\frac{n^2}{u^2} < 1.\right)$$

Simplest of all is the exponential,

$$e^{u+n\omega} - e^u = e^u(e^{n\omega} - 1) = e^u\left(n\omega + \frac{n^2\omega^2}{2!} + \frac{n^3\omega^3}{3!} + \ldots\right) \ldots \quad (c),$$

$$= e^u(+0.01\,n + 0.000{,}05\,n^2 + 0.000{,}000{,}167\,n^3 + \ldots), \quad (\omega = 0.01)$$
$$= e^u(+0.001\,n + 0.000{,}000{,}5\,n^2 + \ldots). \quad (\omega = 0.001)$$

The series in $n\omega$ may be replaced by h, and this may have any finite value. Especially when a computing machine is available, this formula is easily applied and is, of course, rigorous.

From time to time inverse interpolation by a method more accurate than first differences is called for; indeed, whenever interpolation of a function by higher differences is needful, it is equally needful that the argument corresponding to a given function should be ascertained by a like process. The method ordinarily pursued in such cases is to estimate two values of the argument, one a little greater and the other a little less than that of the required argument, interpolate corresponding values of the function, and finally interpolate linearly over the reduced interval for a final value of the argument.

Another method consists in interpolating values of the function and its derivatives for an approximate value of the required interval and then computing a correction to this approximate value by means of a reversed Taylor's series.[1]

If second differences only are to be taken into account, the usual method of procedure is to estimate an approximate value of n, say n', and with this estimated value we interpolate linearly as before and find the value of $\omega F'_{\frac{n'}{2}}$ corresponding to one-half of the estimated interval $\left(\frac{n'}{2}\right)$. Then the required interval (n) is equal to the difference between the given value and the nearest tabular of the function divided by $\omega F'_{\frac{n'}{2}}$. This method is in fact simply the reverse of the one for direct interpolation. A recomputation is of course necessary if the values of n and n' are not practically the same. As an illustration, find u when $\log_{10} \sinh u = 7.48287$. We first compute

$$n' = \frac{7.48287 - 7.47712}{1448,0} = 0.4,$$

then the value of $\omega F'_{\frac{n'}{2}}$ in terms of the last tabular unit is found as before by linear interpolation to be 1438,0. Hence

$$n = \frac{7.48287 - 7.47712}{1438,0} = 0.40 \text{ and } u = 0.00304.$$

Since the estimated and computed values of the interval agree, there is no need of a recomputation.

The methods which are based upon an estimated value of the argument are unsystematic and clumsy. It is much better to use a formula which gives the required result by a direct and rigorous method. To find such a formula, divide Taylor's series (eq. a) by $\omega F'_0$, and put

$$n_1 = \frac{F_n - F_0}{\omega F'_0};\ f_2 = \frac{\omega^2 F''_0}{2\,\omega F'_0};\ f_3 = \frac{\omega^3 F'''_0}{6\,\omega F'_0};\ f_4 = \frac{\omega^4 F^{iv}_0}{24\,\omega F'_0};\ f_5 = \frac{\omega^5 F^{v}_0}{120\,\omega F'_0};$$

then the interpolation formula may be written

$$n_1 = n + f_2 n^2 + f_3 n^3 + f_4 n^4 + f_5 n^5.$$

Reversing this series in accordance with the relation,[2]

$$x = \frac{y}{a_0} + \frac{y^2}{a_0^3}(-a_1) + \frac{y^3}{a_0^5}(-a_0 a_2 + 2 a_1^2)$$
$$+ \frac{y^4}{a_0^7}(-a_0^2 a_3 + 5 a_0 a_1 a_2 - 5 a_1^3)$$
$$+ \frac{y^5}{a_0^9}(-a_0^3 a_4 + 3 a_0^2 (a_2^2 + 2 a_1 a_3) - 21 a_0 a_1^2 a_2 + 14 a_1^4),$$

[1] Rice's Theory and Practice of Interpolation, section 83.

[2] Prof. James McMahon: "On the General Term in the Reversion of Series." Bull. Am. Math. Soc., April, 1894.

which is the reversed series of

$$y = a_0 x + a_1 x^2 + a_2 x^3 + a_3 x^4 + a_4 x^5;$$

and rearranging the terms,[1]

$$\begin{aligned} n = n_1 + n_1 & [-n_1 f_2 + 2 (n_1 f_2)^2 - 5 (n_1 f_2)^3 + 14 (n_1 f_2)^4 + \ldots] \\ & + n_1^2 [n_1 f_3 (-1 + 5 (n_1 f_2) - 21 (n_1 f_2)^2 + \ldots)] \\ & + n_1^3 [n_1 f_4 (-1 + 6 n_1 f_2) + 3 (n_1 f_3)^2 + \ldots] \\ & + n_1^4 [-n_1 f_5 + \ldots] \quad . \quad . \quad . \quad . \quad (d). \end{aligned}$$

In the actual computation it is convenient to put

$$r = \frac{n_1}{2 \omega F_0'};$$

then, when successive values of $\omega F_n'$ are tabulated in units of the last decimal place, and Stirling's coefficients are used,

$$n_1 f_2 = r \omega (\alpha_0 - \tfrac{1}{6} \gamma_0) \qquad n_1 f_3 = \tfrac{1}{3} r \omega (\beta_0 - \tfrac{1}{12} \delta_0)$$
$$n_1 f_4 = \tfrac{1}{12} r \omega \gamma_0 \qquad n_1 f_5 = \tfrac{1}{60} r \omega \delta_0.$$

The formula is rigorous inclusive of fifth differences, and does not require the computation of an approximate value of n. It is applicable to any function or series of tabulated values whose successive derivatives become evanescent. It is particularly convenient when differences higher than the second are neglected. The formula then becomes

$$n = n_1 + n_1 [-r \omega \alpha_0 + 2 (r \omega \alpha_0)^2 - 5 (r \omega \alpha_0)^3 + 14 (r \omega \alpha_0)^4].$$

Since $r \omega \alpha_0$ is a very small quantity, the higher powers are seldom needed, and, should they be required, are easily taken into account. As an example, let it be required to find u when $\log_{10} \sinh u = 7.48287$. We compute

$$n_1 = \frac{7.48287 - 7.47712}{1447{,}7} = 0.40$$

$$r = \frac{n_1}{2 \omega F_0'} = \frac{0.40}{2 \times 1447{,}7} = 0.0001;$$

and

$$n_1 r \omega \alpha_0 = 0.40 \times 0.0001 \times (-48{,}3) = 0.00.$$

Hence $n = n_1 = 0.40$ and $u = 0.00304$, the same as obtained by the other method.

When $F_n = e^u$, it is easily shown, either by means of series (d) or by independent methods, that

$$n \omega = \log (1 + n_1 \omega) \quad . \quad . \quad . \quad . \quad . \quad . \quad (e),$$
$$n = + n_1 - 0.005 n_1^2 + 0.000{,}033 n_1^3 + \ldots, \quad (\omega = 0.01)$$
$$n = + n_1 - 0.0005 n_1^2 + \ldots \ldots \quad (\omega = 0.001)$$

These formulæ afford an easy means of finding the natural logarithm of a

[1] See, also, "Inverse Interpolation by Means of a Reversed Series," Phil. Mag., May, 1908.

number from the tabular values of $e^{\pm u}$. Thus, to find the natural logarithm of 0.9642102, we compute

$$n_1 = \frac{0.9646403 - 0.9642102}{0.0009646403} = 0.44587.$$

Substituting in the last of the above equations

$$n = 0.44587 - 0.0005 \times (0.45)^2 = 0.44577,$$

hence nat log of 0.9642102 = − 0.0364458.

One of the most important applications of differences is the detection of errors in values tabulated at equal intervals of the argument. It may be shown by substitution in the schedule of differences (page xxxiv) that an error, $+\epsilon$, in F_0 produces errors in the successive differences of any order which are multiples of ϵ, the law of distribution of the multiples being that of the corresponding coefficients of the binomial theorem, and the signs of the errors being alternately positive and negative. Since some order of differences of every continuous function must vanish, the presence of an error in a tabular value must ultimately result in producing successive differences of a certain order which alternate in sign. A comparison of these differences with the corresponding binomial coefficients enables one to estimate the magnitude of the error. Thus in the series which follows:

X	X^3	Δ'	Δ''	Δ'''	Δ^{iv}
13	2197				
		547			
14	2744		84		
		631		6	
15	3375		90		+ 2
		721		8	
16	4096		98		− 8
		819		0	
17	4915		98		+ 12
		917		12	
18	5832		110		− 8
		1027		4	
19	6859		114		+ 2
		1141		6	
20	8000		120		
		1261			
21	9261				

the alternation in sign occurs in the fourth-order differences, and the numerical values are twice the coefficients of $(a + b)^4$. Hence there is an error of +2 units in the value 4915. The corrections −2, +8, −12, +8, −2 applied to the fourth differences causes them to vanish, and the corrections −2, +6, −6, +2 applied to the third differences reduces them to a constant.

This method is particularly useful in detecting large accidental errors in a series of observed values and in estimating their magnitudes.

DESCRIPTION OF TABLES.

Table I is devoted to 5-place values of the logarithmic hyperbolic sine, cosine, tangent, and cotangent of u expressed in radians. The argument u advances by ten-thousandths from 0 to 0.1, by thousandths from 0.1 to 3.0, and by hundredths from 3.0 to 6.0. In this as in all the tables (except Table VII), instead of the first differences, the first derivatives of the functions multiplied by the tabular interval (ω) are tabulated in units of the last decimal place, under the heading $\omega F_0'$. As noted above, this agrees with much of the most authoritative modern practice and facilitates interpolation. It did not appear worth while to extend the tabulation of the table beyond six radians, because higher values are seldom needed; but in Table IV a few very high values of $e^{\pm u}$ are given, from which in case of need the hyperbolic functions can be found.

In Table II the natural values of the hyperbolic functions are tabulated for the same arguments as in Table I. In some instances the values are given to one or to two places of decimals more than would be obtained by taking the inverse logarithms of the preceding table.

Table III gives $\sin u = -i \sinh iu$ and $\cos u = \cosh iu$ with their logarithms to 5 decimal places, the argument u being expressed in radians. The tabulation extends from $u = 0.0000$ to 0.1000, and from $u = 0.100$ to 1.600, because $90^0 = 1.570\ 7963$ radians; so that, this value of $\frac{\pi}{2}$ being borne in mind, the table affords the means of finding the sine or cosine of any arc expressed in radians.

Independently of hyperbolic functions, this table is often convenient. It also facilitates the computation of the principal hyperbolic functions of complex variables. Thus

$$\sinh (u \pm iv) = \sinh u \cos v \pm i \cosh u \sin v,$$
$$\cosh (u \pm iv) = \cosh u \cos v \pm i \sinh u \sin v,$$

and to compute either of these functions it is only needful to take out two tabulated logarithms from Table III, two from Table I, make two additions, and look out two antilogarithms. It is of course conceivable that all the four quantities involved should be tabulated once for all; but even if u and v advanced only by hundredths, such a table would occupy 200 pages. To find from it functions corresponding to u and v expressed in thousandths would require three interpolations—a process quite as laborious as the use of the tables here given.

Space which would otherwise be vacant is utilized to give the angular values of the radian arguments, or a table of conversion of radians from

0.0000 to 0.1000 and from 0.100 to 1.600 into degrees, minutes, seconds, and hundredths of a second.

Table IV gives the values of $\log_{10} e^u$, e^u and e^{-u} to 7 decimal places from $u = 0.000$ to 3.000 and from 3.00 to 6.00. The values of e^u and e^{-u} enter into a vast number of equations representing natural phenomena, especially those (as Cournot remarked) which can be classed under the generic denomination of phenomena of absorption or gradual extinction. The ascending and descending exponentials may be regarded at will either as hyperbolic functions or as independent components of hyperbolic functions, since

$$e^{\pm u} = \cosh u \pm \sinh u$$

while, on the other hand,

$$\sinh u = \frac{e^u - e^{-u}}{2}; \quad \cosh u = \frac{e^u + e^{-u}}{2};$$

$$\tanh u = \frac{e^u - e^{-u}}{e^u + e^{-u}}; \quad \text{gd}\, u = 2 \tan^{-1} e^u - \frac{\pi}{2}.$$

It is further evident that a table of $e^{\pm u}$ is a table of natural antilogarithms. Formula *e* on page xli affords an easy means of obtaining the natural logarithm of a number from the tabular values of $e^{\pm u}$. It is of course unnecessary to give the derivative of e^u, since this is e^u, while the derivative e^{-u} is $-e^{-u}$. In general the interpolation or extrapolation of the function is very easy. (See formula *c*, page xxxix). The logarithm of e^{-u} is not given because, being merely the arithmetical complement of the $\log_{10} e^u$, it can be read off as fast as it can be written down.

In any table of $\log_{10} e^u$ where the interval of u is ω, the difference of successive logarithms is constant and equal to $\omega \log_{10} e$ or $0.4342\,9448\,\omega$. If the logarithm of $e^{u+n\omega}$ is required, this will be

$$(u + n\omega) \log_{10} e = \log_{10} e^u + n\omega \log_{10} e.$$

Hence it is practicable to prepare an extended table of proportional parts or a table of $n \log_{10} e$ which is applicable to any table of $\log_{10} e^u$ when the tabulated values are multiplied by ω. Such an auxiliary table is given at the close of Table IV, in which the argument $\frac{n}{\omega}$ varies from 0.000 to 0.500. If ω is unity, this is merely a 5-place table of $\log_{10} e^u$. If, on the other hand, ω is 0.001, as in the earlier part of Table IV, the auxiliary table gives the increments corresponding to n to 8 places of decimals. Thus, if $\log_{10} e^{0.088245}$ is required, Table IV gives $\log_{10} e^{0.088} = 0.0382179$, the auxiliary table gives for $\frac{n}{\omega} = 0.245$, $n \log_{10} e = 0.10640$; and since $\omega = 0.001$, $\omega\, n \log_{10} e =$ 0.00010640, which added to $\log_{10} e^{0.088}$, gives $\log_{10} e^{0.088245} = 0.0383243$. In the latter portion of Table IV ω is only 0.01; so that, if the $\log_{10} e^{3.00245}$ is wanted, the main table gives $\log e^{3.00} = 1.3028834$, and ω times $n \log e$ is 0 0010640; so that the required number is 1 3039474.

When $\log_{10} e^u$ is required for $u > 6.00$ the auxiliary table is insufficient to give 7-place values. Then the main table, IV, may be used as an auxiliary table. Thus

$$\log e^{11.088245} = \log e^{11} + \log$$
$$= 4.7772393 + 0.0383243 = 4.8155636.$$

In the second part of Table IV values of $e^{\pm u}$ and the logarithms of e^u are given, u varying from 1 to 100. The logarithms are given to 10 decimals; the other functions to 9 significant figures. Such high values are seldom needed, but are included here lest these tables might some times fail the computer.

Table V gives the natural logarithms of numbers from 1 to 1000, with their derivatives to 5 places of decimals. These derivatives are merely the reciprocals of the arguments, and since $\log_e \left(\frac{1}{y}\right) = -\log_e y$, the logarithms of the derivatives are the tabulated logarithms taken negatively. The table thus gives, in addition to the logarithms of 1000 whole numbers, the logarithms of 1000 proper fractions lying between 0.001 and unity.

The interpolation of natural logarithms is much less simple than is that of common logarithms, and this is the main reason why the latter are preferred for computation. A few simple rules, however, facilitate the needful calculations. When the natural logarithm of a vulgar fraction is required it is best to look out the logarithm of both numerator and denominator and subtract. If the natural logarithm is required of a fractional number stated decimally and less than 21.000, no attempt should be made to interpolate it directly, because the third differences of the table cannot be neglected for numbers so near the beginning of the table. If the number lies between 10.000 and 21.000, as, for example, 12.345, it should be written 123.45 / 10, and the required logarithm will be nat log 123.45 — nat log 10. It is safe to interpolate the first of these between nat log 123 and nat log 124, using the formula for second differences. If the number whose logarithm is to be found lies between 1 and 10, as, for example, 8.2468, it should be written 824.68 / 100, so that the required quantity is nat log 824.68 — nat log 100. The first of these logarithms can be found by using only the mean first differences or the tabulated derivatives between the logarithms of 824 and 825. For values of the argument between 21 and 158 interpolation requires the use of second differences, while above 158 average first differences or the first derivative is sufficiently accurate, inasmuch as the error involved is less than half a unit in the fifth decimal place.

It would be possible to interpolate the negative logarithms of the smaller fractions given by the derivatives—that is, from the reciprocal of 159 on to the end of the table, or for numbers between 0.00628 and 0.00100—but this would not be expedient, because these reciprocals are themselves rounded values. If the natural logarithm of 0.0068352 is wanted as accurately as

the tables will give it, it is best to find the logarithm of 683.52 and to subtract from it the logarithm of 100,000. (See also formula e, page xli.)

The use of second differences may be avoided altogether if the computer chooses, for any number not lying between 158 and 1,000 may be multiplied and divided by another number which will bring the numerator within these limits. Thus, if, as before, nat log 12.345 is required, this number may be written 246.90 / 20, and the natural logarithm of the numerator found by help of the derivative, less nat log 20, is the required value.

The awkwardness of a table of natural logarithms is inherent and cannot be overcome by any device. It depends on the fact that e and the base of numeration, the number 10, are incommensurable quantities. If our numeration were duodecimal, as it might have been had six fingers to a hand been the rule instead of the exception, 12 would also have been the most convenient base for a table of logarithms. A great table of natural logarithms, such as Barlow's 8-place table of all numbers from 1 to 10,000, is only a little more convenient than that here offered, and with it, too, it is expedient to multiply any small number by a factor such that the product approaches 10,000.

Table VI gives the values of the gudermannian of u to 7 places from $u = 0.000$ to $u = 3.000$ and from $u = 3.00$ to $u = 6.00$. In this table u is expressed in radians, and $gd\,u$ both in radians and in angular measure. For theoretical work the gudermannian in radians is usually the more convenient, but for use in finding hyperbolic functions it must be reduced to an angle.

The gudermannian, $gd\,u$, is connected with the hyperbolic functions by the following well-known relations:

$$\sinh u = \tan gd\,u\,;\ \cosh u = \sec gd\,u\,;\ \tanh u = \sin gd\,u$$

$$\tanh \frac{u}{2} = \tan \tfrac{1}{2}\,gd\,u\,;\ u = \log_e \tan\left(\frac{\pi}{4} + \tfrac{1}{2}\,gd\,u\right).$$

Thus Table VI, with the help of a 7-place table of logarithms of the circular functions, gives 7-place values of the hyperbolic functions.

The derivative of $gd\,u$ is sech u, and can be used independently of the gudermannian.

Table VII is substantially a reversion of Table VI, and gives the antigudermannian in terms of the gudermannian, both, however, being expressed in minutes and decimals of a minute. If m is the antigudermannian expressed in minutes and u the same function expressed in radians,

$$m = 3437.7468\,u = 3437.7468 \log_e \tan\left(\frac{\pi}{4} + \tfrac{1}{2}\,gd\,u\right).$$

Table VII is a table of m, and if m is multiplied by 0.000 2908 8821 the product is u in radians. This table is known to navigators as a table of Meridional Parts for a Spherical Globe. It is frequently of use in the discussion of physical questions and is the very foundation of navigation with Mercator charts. In the more modern works on navigation, however, the

ellipticity of the meridian is allowed for in computing tables of meridional parts, and consequently this table will probably never be reproduced in a navigator. For this reason it is here preserved for computers who are not engaged in navigation.

To test this table, which is borrowed from Inman, 200 of the values, or one in every 27 entries, were compared with Gudermann's 7-decimal place table of the antigudermannian in radian measure. In nearly all cases Inman's last figure was confirmed, but in a few instances the last figure is incorrect by a unit. Inquiry into these cases showed that the maximum error detected was less than 0.006 of a minute. Thus the last figure is not absolutely trustworthy, but is near enough to enable the computer to interpolate accurately to 5 places. If 7 places of the antigudermannian are required, they can be found by inverse interpolation in Table VI.

The earlier part of Table VII may be interpolated by first differences without considerable error. At about 84°30′ one-eighth of the second difference becomes approximately half a unit in the last tabulated place, and beyond this point second differences should be taken into account.

Table VIII is a table for converting radians into angular measure and *vice versa*. A few numerical constants are appended.

HISTORICAL NOTE.

The first and most important application of the functions now known as hyperbolic was made by Gerhard Mercator (Kremer) when he issued his map on "Mercator's projection," in 1569, or, as some say, in 1550, while Bowditch gives the date as 1566. To this day substantially all of the deep-sea navigation of the world is carried on by the help of this projection, which has been modified only to the extent of correcting the "meridional parts" for the ellipticity of the meridian. Mercator's problem was to find a projection on which the loxodrome should be a straight line. The solution is unique, and for a spherical globe is $\lambda = gd\,\frac{m}{a}$ where λ is the latitude, m the "meridional part," or the ordinate on the projection of a point in latitude λ, and a is the radius of the sphere. Of course, this relation gives

$$\frac{m}{a} = \log_e \tan\left(\frac{\pi}{4} + \frac{\lambda}{2}\right)$$

and this Mercator must have tabulated. He published his map without explanation, however, and it was left to Edward Wright in 1599 to state the formula for m.

"The actual inventor of the hyperbolic trigonometry," says Professor McMahon, "was Vincenzo Riccati, S. J. (Opuscula ad res Phys. et Math. pertinens, Bononiae, 1757). He adopted the notation *Sh.* ϕ, *Ch.* ϕ, for the hyperbolic functions and *Sc.* ϕ, *Cc.* ϕ for the circular ones. He proved the addition theorem geometically, and derived a construction for the solution of a cubic equation. Soon after Daviet de Foncenex showed how to interchange circular and hyperbolic functions by the use of $\sqrt{-1}$, and gave the analogue of de Moivre's theorem, the work resting more on analogy, however, than on clear definition (Reflex. sur les quant. imag., Miscel. Turin Soc., Tom. 1). Johann Heinrich Lambert systematized the subject and gave the serial developments and the exponential expressions. He adopted the notation sinh u, etc., and introduced the transcendent angle, now called the gudermannian, using it in computation and in the construction of tables[1]."

C. Gudermann published an important memoir on Potential or Cyclic-hyperbolic functions in 1830[2], followed by extended tables. In recogni-

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[1] James McMahon, Hyperbolic Functions, p. 71.

[2] Crelle's Journal, vols. 6, 7, 8, and 9. These memoirs were afterwards reprinted in a separate volume.

tion of his contributions to the subject, Cayley, in 1862,[1] proposed the name gudermannian[2] for the angle which Lambert called transcendent, and which had been variously designated by others. Among other more recent works on hyperbolic functions are Siegmund Günther's Lehre von den Hyperbelfunctionen, 1881, and Mr. James McMahon's Hyperbolic Functions, 4th edition, 1906.

The first large table of hyperbolic functions we have met with is Legendre's table of log tan $\left(\frac{\pi}{4}+\frac{\lambda}{2}\right)$ to 12 decimals. The argument advances by increments of 30 minutes, but five differences are tabulated to facilitate interpolation.[3] Gudermann in 1831 published a table of the same function, using centesimal degrees and advancing by hundredths of a degree ($0°0'32''.4$) from 0 to an entire quadrant, the function being given to seven decimal places. This was later supplemented by a table advancing by hundredths of a degree from 88° to 100°, the function being given to eleven decimal places. Gudermann also gave a 9-place table of log cosh u, log sinh u, and log tanh u, from $u = 2.000$ to $u = 5.000$, and a 10-place table of the same functions from $u = 5.00$ to $u = 12.00$.

In 1862 Z. F. W. Gronau[4] published a 5-place table of hyperbolic functions, the argument being the gudermannian $gd\,u$ in sexagesimal degrees and minutes. He tabulated to this argument log cosh u, log sinh u, and the Briggs logarithm of $\left(\frac{\pi}{4}+\frac{gd\,u}{2}\right)$ instead of the natural logarithms of this function, following therein a suggestion of Lambert.

In 1890 W. Ligowski issued his Tafeln der Hyperbelfunctionen und der Kreisfunctionen, which is admirably accurate and much the most useful collection of tables of the hyperbolic functions hitherto printed. He filled the gap left by Gudermann by computing log sinh u, log cosh u, and log tanh u from $u = 0.000$ to 2.000. These he gives to only 5 places, but in addition he tabulates $gd\,u$ in degrees, minutes, seconds, and decimals of a second. These values are in all cases sufficiently accurate to enable the computer to take out from an ordinary table of logarithms 7-place values of the logarithms of cosh u, sinh u, and tanh u. The argument ranges from 0.000 to 2.000 and from 2.00 to 6.00 for $gd\,u$, while log cosh u and log sinh u are carried up to $u = 9.00$. Ligowski also gives the natural functions cosh u, sinh u, cos u, and sin u to 6 decimals for values of u in radians from 0.00 to 2.00, the cosh u and sinh u being continued to $u = 8.00$. The only fault we can find with Ligowski's tables is that the increments of the argument are sometimes inconveniently large.

[1] Phil. Mag., vol. 24, p. 19.
[2] Thus spelled in Cayley's paper.
[3] Exercises de Cal. Int., vol. 2, 1816.
[4] Neueste Schriften der Naturforscher-Gesellschaft in Danzig, vol. 6, 1862.

In 1883 F. W. Newman published a 12-place table[1] of the descending exponential from $u = 0.000$ to $u = 15.349$, and a 14-place table of the same function advancing by two-thousandths from 15.350 to 17.298 and by five-thousandths from 17.298 to 27.635. In the same volume appeared Mr. J. W. L. Glaisher's tables of the ascending and descending exponential to nine significant figures, with 10-place logarithms. The argument advances by one-thousandth to 0.1; by one-hundredth to 2.00; by one-tenth to 10, and by a single unit to 500.

Mr. A. Forti's Nuove Tavole delle Funzioni Iperboliche were published in 1892. The hyperbolic sines, cosines, and tangents, together with their logarithms, are given to six decimals from 0.0000 to 0.2000, from 0.200 to 2.000, and from 2.00 to 8.00. Frequent errors, however, of one, two, and three units in the last decimal place practically limit these tables to five places. The gudermannian is tabulated in degrees, minutes, seconds, and tenths of a second, and the logarithms of the arguments are given to seven places.

In the volume here presented the first thousand values of log sinh u, log cosh u, and log tanh u have been computed; the remaining values have been taken from the tables of Gudermann or Ligowski. The values of the natural hyperbolic sines and cosines for values of the argument < 0.1 and of the tangents for arguments > 2.0 have been computed; the remaining values have been taken from the tables of Forti and Ligowski. A recomputation of a great number of the borrowed values was made in order to obtain the required accuracy. The values of coth u and log coth u have been computed.

In Table III the sines and cosines were obtained by interpolation from the 7-place values of natural sines and cosines given in Hülsse's Vega, where the argument is expressed in angle. The logarithms of the sines and cosines and the angular equivalents of the arguments have been computed.

In Table IV the values of e^{-u} are all taken from Newman's great table. Those of e^{+u} from 0.000 to 0.100 and from 1 to 100 are from Glaisher's table. The remainder we computed, checking the results by Glaisher's table or by reciprocating. It should be noted that the 7-place table of e^u given in Hülsse's edition of Vega is inaccurate and really amounts to no more than a 5-place table. The logarithms of e^u were computed independently of the values of e^u.

Tables V and VIII are borrowed.

The values of *gd u* in Table VI in terms of angle are taken from Ligowski, excepting the thousand values between $u = 2.000$ and 3.000. These were interpolated from Ligowski's values (2.00 to 3.00) with due checks on his accuracy. In preparing the table of *gd u* in radians it was necessary for us to make an independent computation of this function from $u = 0.300$ to $u = 3.000$ in order to secure accuracy in the seventh significant figure. The remaining values were derived from Ligowski by converting angles

[1] Cambridge Phil. Soc., Trans., vol. 13, 1883.

into radians. A considerable number of his values, however, were tested by independent computation.

Table VII is borrowed from the Nautical tables of James Inman, revised by James W. Inman, London, 1867, with a few small corrections.

Finally, it may be remarked that the derivatives as given in these tables have been computed for them. They are not derived from the differences of the values as printed, but from more extended values, or are computed independently, and the error of the derivatives as well as of the functions is less than one-half of a unit in the next succeeding decimal place.

These tables were prepared in connection with the geophysical work of the United States Geological Survey, and are published with the permission of the Director.

GEORGE F. BECKER.
C. E. VAN ORSTRAND.

WASHINGTON, D. C., *January, 1908.*

TABLE I

LOGARITHMS OF HYPERBOLIC FUNCTIONS

Logarithms of Hyperbolic Functions.

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0000	— ∞	— ∞	0.00000	0,0	— ∞	∓ ∞	∞
.0001	6.00000	43429,4	.00000		6.00000	43429,4	4.00000
.0002	.30103	21714,7	.00000		.30103	21714,7	3.69897
.0003	.47712	14476,5	.00000		.47712	14476,5	.52288
.0004	.60206	10857,4	.00000		.60206	10857,4	.39794
0.0005	6.69897	8685,9	0.00000	0,0	6.69897	8685,9	3.30103
.0006	.77815	7238,2	.00000		.77815	7238,2	.22185
.0007	.84510	6204,2	.00000		.84510	6204,2	.15490
.0008	.90309	5428,7	.00000		.90309	5428,7	.09691
.0009	.95424	4825,5	.00000		.95424	4825,5	.04576
0.0010	7.00000	4342,9	0.00000	0,0	7.00000	4342,9	3.00000
.0011	.04139	3948,1	.00000		.04139	3948,1	2.95861
.0012	.07918	3619,1	.00000		.07918	3619,1	.92082
.0013	.11394	3340,7	.00000		.11394	3340,7	.88606
.0014	.14613	3102,1	.00000		.14613	3102,1	.85387
0.0015	7.17609	2895,3	0.00000	0,0	7.17609	2895,3	2.82391
.0016	.20412	2714,3	.00000		.20412	2714,3	.79588
.0017	.23045	2554,7	.00000		.23045	2554,7	.76955
.0018	.25527	2412,7	.00000		.25527	2412,7	.74473
.0019	.27875	2285,8	.00000		.27875	2285,8	.72125
0.0020	7.30103	2171,5	0.00000	0,0	7.30103	2171,5	2.69897
.0021	.32222	2068,1	.00000		.32222	2068,1	.67778
.0022	.34242	1974,1	.00000		.34242	1974,1	.65758
.0023	.36173	1888,2	.00000		.36173	1888,2	.63827
.0024	.38021	1809,6	.00000		.38021	1809,6	.61979
0.0025	7.39794	1737,2	0.00000	0,0	7.39794	1737,2	2.60206
.0026	.41497	1670,4	.00000		.41497	1670,4	.58503
.0027	.43136	1608,5	.00000		.43136	1608,5	.56864
.0028	.44716	1551,1	.00000		.44716	1551,0	.55284
.0029	.46240	1497,6	.00000		.46240	1497,6	.53760
0.0030	7.47712	1447,7	0.00000	0,0	7.47712	1447,6	2.52288
.0031	.49136	1401,0	.00000		.49136	1400,9	.50864
.0032	.50515	1357,2	.00000		.50515	1357,2	.49485
.0033	.51851	1316,0	.00000		.51851	1316,0	.48149
.0034	.53148	1277,3	.00000		.53148	1277,3	.46852
0.0035	7.54407	1240,8	0.00000	0,0	7.54407	1240,8	2.45593
.0036	.55630	1206,4	.00000		.55630	1206,4	.44370
.0037	.56820	1173,8	.00000		.56820	1173,8	.43180
.0038	.57978	1142,9	.00000		.57978	1142,9	.42022
.0039	.59107	1113,6	.00000		.59106	1113,6	.40894
0.0040	7.60206	1085,7	0.00000	0,0	7.60206	1085,7	2.39794
.0041	.61279	1059,3	.00000		.61278	1059,2	.38722
.0042	.62325	1034,0	.00000		.62325	1034,0	.37675
.0043	.63347	1010,0	.00000		.63347	1010,0	.36653
.0044	.64345	987,0	.00000		.64345	987,0	.35655
0.0045	7.65321	965,1	0.00000	0,0	7.65321	965,1	2.34679
.0046	.66276	944,1	.00000		.66275	944,1	.33725
.0047	.67210	924,0	.00000		.67209	924,0	.32791
.0048	.68124	904,8	.00001		.68124	904,8	.31876
.0049	.69020	886,3	.00001		.69019	886,3	.30981
0.0050	7.69897	868,6	0.00001	0,0	7.69897	868,6	2.30103
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.0050	7.69897	868,6	0.00001	0,0	7.69897	868,6	2.30103
.0051	.70757	851,6	.00001		.70757	851,5	.29243
.0052	.71601	835,2	.00001		.71600	835,2	.28400
.0053	.72428	819,4	.00001		.72427	819,4	.27573
.0054	.73240	804,3	.00001		.73239	804,2	.26761
0.0055	7.74036	789,6	0.00001	0,0	7.74036	789,6	2.25964
.0056	.74819	775,5	.00001		.74818	775,5	.25182
.0057	.75588	761,9	.00001		.75587	761,9	.24413
.0058	.76343	748,8	.00001		.76342	748,8	.23658
.0059	.77085	736,1	.00001		.77085	736,1	.22915
0.0060	7.77815	723,8	0.00001	0,0	7.77815	723,8	2.22185
.0061	.78533	712,0	.00001		.78532	711,9	.21468
.0062	.79239	700,5	.00001		.79239	700,5	.20761
.0063	.79934	689,4	.00001		.79933	689,3	.20067
.0064	.80618	678,6	.00001		.80617	678,6	.19383
0.0065	7.81292	668,1	0.00001	0,0	7.81291	668,1	2.18709
.0066	.81955	658,0	.00001		.81954	658,0	.18046
.0067	.82608	648,2	.00001		.82607	648,2	.17393
.0068	.83251	638,7	.00001		.83250	638,6	.16750
.0069	.83885	629,4	.00001		.83884	629,4	.16116
0.0070	7.84510	620,4	0.00001	0,0	7.84509	620,4	2.15491
.0071	.85126	611,7	.00001		.85125	611,7	.14875
.0072	.85734	603,2	.00001		.85732	603,2	.14268
.0073	.86333	594,9	.00001		.86332	594,9	.13668
.0074	.86924	586,9	.00001		.86922	586,9	.13078
0.0075	7.87507	579,1	0.00001	0,0	7.87505	579,0	2.12495
.0076	.88082	571,4	.00001		.88081	571,4	.11919
.0077	.88649	564,0	.00001		.88648	564,0	.11352
.0078	.89210	556,8	.00001		.89209	556,8	.10791
.0079	.89763	549,7	.00001		.89762	549,7	.10238
0.0080	7.90309	542,9	0.00001	0,0	7.90308	542,8	2.09692
.0081	.90849	536,2	.00001		.90848	536,1	.09152
.0082	.91382	529,6	.00001		.91380	529,6	.08620
.0083	.91908	523,2	.00001		.91907	523,2	.08093
.0084	.92428	517,0	.00002		.92427	517,0	.07573
0.0085	7.92942	510,9	0.00002	0,0	7.92941	510,9	2.07059
.0086	.93450	505,0	.00002		.93449	505,0	.06551
.0087	.93952	499,2	.00002		.93951	499,2	.06049
.0088	.94449	493,5	.00002		.94447	493,5	.05553
.0089	.94940	488,0	.00002		.94938	487,9	.05062
0.0090	7.95425	482,6	0.00002	0,0	7.95423	482,5	2.04577
.0091	.95905	477,3	.00002		.95903	477,2	.04097
.0092	.96379	472,1	.00002		.96378	472,0	.03622
.0093	.96849	467,0	.00002		.96847	467,0	.03153
.0094	.97313	462,0	.00002		.97312	462,0	.02688
0.0095	7.97773	457,2	0.00002	0,0	7.97771	457,1	2.02229
.0096	.98228	452,4	.00002		.98226	452,4	.01774
.0097	.98678	447,7	.00002		.98676	447,7	.01324
.0098	.99123	443,2	.00002		.99121	443,1	.00879
.0099	.99564	438,7	.00002		.99562	438,7	.00438
0.0100	8.00001	434,3	0.00002	0,0	7.99999	434,3	2.00001
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.0100	8.00001	434,3	0.00002	0,0	7.99999	434,3	2.00001
.0101	.00433	430,0	.00002		8.00431	430,0	1.99569
.0102	.00861	425,8	.00002		.00859	425,7	.99141
.0103	.01284	421,7	.00002		.01282	421,6	.98718
.0104	.01704	417,6	.00002		.01702	417,6	.98298
0.0105	8.02120	413,6	0.00002	0,0	8.02117	413,6	1.97883
.0106	.02531	409,7	.00002		.02529	409,7	.97471
.0107	.02939	405,9	.00002		.02937	405,9	.97063
.0108	.03343	402,1	.00003		.03341	402,1	.96659
.0109	.03744	398,5	.00003		.03741	398,4	.96259
0.0110	8.04140	394,8	0.00003	0,0	8.04138	394,8	1.95862
.0111	.04533	391,3	.00003		.04531	391,2	.95469
.0112	.04923	387,8	.00003		.04920	387,7	.95080
.0113	.05309	384,4	.00003		.05306	384,3	.94694
.0114	.05691	381,0	.00003		.05689	380,9	.94311
0.0115	8.06071	377,7	0.00003	0,0	8.06068	377,6	1.93932
.0116	.06447	374,4	.00003	0,1	.06444	374,4	.93556
.0117	.06820	371,2	.00003		.06817	371,2	.93183
.0118	.07189	368,1	.00003		.07186	368,0	.92814
.0119	.07556	365,0	.00003		.07553	364,9	.92447
0.0120	8.07919	361,9	0.00003	0,1	8.07916	361,9	1.92084
.0121	.08280	358,9	.00003		.08276	358,9	.91724
.0122	.08637	356,0	.00003		.08634	355,9	.91366
.0123	.08992	353,1	.00003		.08988	353,0	.91012
.0124	.09343	350,3	.00003		.09340	350,2	.90660
0.0125	8.09692	347,5	0.00003	0,1	8.09689	347,4	1.90311
.0126	.10038	344,7	.00003		.10035	344,6	.89965
.0127	.10382	342,0	.00004		.10378	341,9	.89622
.0128	.10722	339,3	.00004		.10719	339,3	.89281
.0129	.11060	336,7	.00004		.11057	336,6	.88943
0.0130	8.11396	334,1	0.00004	0,1	8.11392	334,0	1.88608
.0131	.11728	331,5	.00004		.11725	331,5	.88275
.0132	.12059	329,0	.00004		.12055	329,0	.87945
.0133	.12386	326,6	.00004		.12383	326,5	.87617
.0134	.12712	324,1	.00004		.12708	324,1	.87292
0.0135	8.13035	321,7	0.00004	0,1	8.13031	331,7	1.86969
.0136	.13355	319,4	.00004		.13351	319,3	.86649
.0137	.13673	317,0	.00004		.13669	317,0	.86331
.0138	.13989	314,7	.00004		.13985	314,7	.86015
.0139	.14303	312,5	.00004		.14299	312,4	.85701
0.0140	8.14614	310,2	0.00004	0,1	8.14610	310,2	1.85390
.0141	.14923	308,0	.00004		.14919	308,0	.85081
.0142	.15230	305,9	.00004		.15226	305,8	.84774
.0143	.15535	303,7	.00004		.15531	303,7	.84469
.0144	.15838	301,6	.00005		.15833	301,6	.84167
0.0145	8.16138	299,5	0.00005	0,1	8.16134	299,5	1.83866
.0146	.16437	297,5	.00005		.16432	297,4	.83568
.0147	.16733	295,5	.00005		.16729	295,4	.83271
.0148	.17028	293,5	.00005		.17023	293,4	.82977
.0149	.17320	291,5	.00005		.17315	291,4	.82685
0.0150	8.17611	289,6	0.00005	0,1	8.17606	289,5	1.82394
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀'	log cosh u	ω F₀'	log tanh u	ω F₀'	log coth u
0.0150	8.17611	289,6	0.00005	0,1	8.17606	289,5	1.82394
.0151	.17899	287,6	.00005		.17894	287,6	.82106
.0152	.18186	285,7	.00005		.18181	285,7	.81819
.0153	.18471	283,9	.00005		.18466	283,8	.81534
.0154	.18754	282,0	.00005		.18749	282,0	.81251
0.0155	8.19035	280,2	0.00005	0,1	8.19030	280,1	1.80970
.0156	.19314	278,4	.00005		.19309	278,3	.80691
.0157	.19592	276,6	.00005		.19586	276,6	.80414
.0158	.19868	274,9	.00005		.19862	274,8	.80138
.0159	.20142	273,2	.00005		.20136	273,1	.79864
0.0160	8.20414	271,5	0.00006	0,1	8.20408	271,4	1.79592
.0161	.20684	269,8	.00006		.20679	269,7	.79321
.0162	.20953	268,1	.00006		.20948	268,0	.79052
.0163	.21221	266,5	.00006		.21215	266,4	.78785
.0164	.21486	264,8	.00006		.21480	264,8	.78520
0.0165	8.21750	263,2	0.00006	0,1	8.21744	263,2	1.78256
.0166	.22013	261,6	.00006		.22007	261,6	.77993
.0167	.22274	260,1	.00006		.22268	260,0	.77732
.0168	.22533	258,5	.00006		.22527	258,5	.77473
.0169	.22791	257,0	.00006		.22785	256,9	.77215
0.0170	8.23047	255,5	0.00006	0,1	8.23041	255,4	1.76959
.0171	.23302	254,0	.00006		.23295	253,9	.76705
.0172	.23555	252,5	.00006		.23549	252,4	.76451
.0173	.23807	251,1	.00006		.23800	251,0	.76200
.0174	.24057	249,6	.00007		.24051	249,5	.75949
0.0175	8.24306	248,2	0.00007	0,1	8.24299	248,1	1.75701
.0176	.24554	246,8	.00007		.24547	246,7	.75453
.0177	.24800	245,4	.00007		.24793	245,3	.75207
.0178	.25044	244,0	.00007		.25037	243,9	.74963
.0179	.25288	242,6	.00007		.25281	242,6	.74719
0.0180	8.25530	241,3	0.00007	0,1	8.25523	241,2	1.74477
.0181	.25770	240,0	.00007		.25763	239,9	.74237
.0182	.26010	238,6	.00007		.26002	238,6	.73998
.0183	.26248	237,3	.00007		.26240	237,3	.73760
.0184	.26484	236,1	.00007		.26477	236,0	.73523
0.0185	8.26720	234,8	0.00007	0,1	8.26712	234,7	1.73288
.0186	.26954	233,5	.00008		.26946	233,4	.73054
.0187	.27187	232,3	.00008		.27179	232,2	.72821
.0188	.27418	231,0	.00008		.27411	231,0	.72589
.0189	.27649	229,8	.00008		.27641	229,7	.72359
0.0190	8.27878	228,6	0.00008	0,1	8.27870	228,5	1.72130
.0191	.28106	227,4	.00008		.28098	227,3	.71902
.0192	.28333	226,2	.00008		.28325	226,1	.71675
.0193	.28558	225,1	.00008		.28550	225,0	.71450
.0194	.28783	223,9	.00008		.28775	223,8	.71225
0.0195	8.29006	222,7	0.00008	0,1	8.28998	222,7	1.71002
.0196	.29228	221,6	.00008		.29220	221,5	.70780
.0197	.29449	220,5	.00008		.29441	220,4	.70559
.0198	.29669	219,4	.00009		.29661	219,3	.70339
.0199	.29888	218,3	.00009		.29880	218,2	.70120
0.0200	8.30106	217,2	0.00009	0,1	8.30097	217,1	1.69903
u	log tan gd u	ω F₀'	log sec gd u	ω F₀'	log sin gd u	ω F₀'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.0200	8.30106	217,2	0.00009	0,1	8.30097	217,1	1.69903
.0201	.30323	216,1	.00009		.30314	216,0	.69686
.0202	.30538	215,0	.00009		.30529	214,9	.69471
.0203	.30753	214,0	.00009		.30744	213,9	.69256
.0204	.30966	212,9	.00009		.30957	212,8	.69043
0.0205	8.31178	211,9	0.00009	0,1	8.31169	211,8	1.68831
.0206	.31390	210,9	.00009		.31381	210,8	.68619
.0207	.31600	209,8	.00009		.31591	209,7	.68409
.0208	.31809	208,8	.00009		.31800	208,7	.68200
.0209	.32018	207,8	.00009		.32008	207,7	.67992
0.0210	8.32225	206,8	0.00010	0,1	8.32216	206,7	1.67784
.0211	.32431	205,9	.00010		.32422	205,8	.67578
.0212	.32637	204,9	.00010		.32627	204,8	.67373
.0213	.32841	203,9	.00010		.32831	203,8	.67169
.0214	.33045	203,0	.00010		.33035	202,9	.66965
0.0215	8.33247	202,0	0.00010	0,1	8.33237	201,9	1.66763
.0216	.33449	201,1	.00010		.33439	201,0	.66561
.0217	.33649	200,2	.00010		.33639	200,1	.66361
.0218	.33849	199,2	.00010		.33839	199,2	.66161
.0219	.34048	198,3	.00010		.34037	198,2	.65963
0.0220	8.34246	197,4	0.00011	0,1	8.34235	197,3	1.65765
.0221	.34443	196,5	.00011		.34432	196,4	.65568
.0222	.34639	195,7	.00011		.34628	195,6	.65372
.0223	.34834	194,8	.00011		.34823	194,7	.65177
.0224	.35028	193,9	.00011		.35018	193,8	.64982
0.0225	8.35222	193,1	0.00011	0,1	8.35211	193,0	1.64789
.0226	.35415	192,2	.00011		.35403	192,1	.64597
.0227	.35606	191,4	.00011		.35595	191,3	.64405
.0228	.35797	190,5	.00011		.35786	190,4	.64214
.0229	.35987	189,7	.00011		.35976	189,6	.64024
0.0230	8.36177	188,9	0.00011	0,1	8.36165	188,8	1.63835
.0231	.36365	188,0	.00012		.36353	187,9	.63647
.0232	.36553	187,2	.00012		.36541	187,1	.63459
.0233	.36740	186,4	.00012		.36728	186,3	.63272
.0234	.36926	185,6	.00012		.36914	185,5	.63086
0.0235	8.37111	184,8	0.00012	0,1	8.37099	184,7	1.62901
.0236	.37295	184,1	.00012		.37283	184,0	.62717
.0237	.37479	183,3	.00012		.37467	183,2	.62533
.0238	.37662	182,5	.00012		.37649	182,4	.62351
.0239	.37844	181,7	.00012		.37832	181,6	.62168
0.0240	8.38025	181,0	0.00013	0,1	8.38013	180,9	1.61987
.0241	.38206	180,2	.00013		.38193	180,1	.61807
.0242	.38386	179,5	.00013		.38373	179,4	.61627
.0243	.38565	178,8	.00013		.38552	178,7	.61448
.0244	.38743	178,0	.00013		.38730	177,9	.61270
0.0245	8.38921	177,3	0.00013	0,1	8.38908	177,2	1.61092
.0246	.39098	176,6	.00013		.39085	176,5	.60915
.0247	.39274	175,9	.00013		.39261	175,8	.60739
.0248	.39450	175,2	.00013		.39436	175,0	.60564
.0249	.39624	174,5	.00013		.39611	174,3	.60389
0.0250	8.39799	173,8	0.00014	0,1	8,39785	173,6	1.60215
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0250	8.39799	173,8	0.00014	0,1	8.39785	173,6	1.60215
.0251	.39972	173,1	.00014		.39958	173,0	.60042
.0252	.40145	172,4	.00014		.40131	172,3	.59869
.0253	.40317	171,7	.00014		.40303	171,6	.59697
.0254	.40488	171,0	.00014		.40474	170,9	.59526
0.0255	8.40659	170,3	0.00014	0,1	8.40645	170,2	1.59355
.0256	.40829	169,7	.00014		.40815	169,6	.59185
.0257	.40998	169,0	.00014		.40984	168,9	.59016
.0258	.41167	168,4	.00014		.41152	168,3	.58848
.0259	.41335	167,7	.00015		.41320	167,6	.58680
0.0260	8.41502	167,1	0.00015	0,1	8.41488	167,0	1.58512
.0261	.41669	166,4	.00015		.41654	166,3	.58346
.0262	.41835	165,8	.00015		.41820	165,7	.58180
.0263	.42001	165,2	.00015		.41986	165,1	.58014
.0264	.42165	164,5	.00015		.42150	164,4	.57850
0.0265	8.42330	163,9	0.00015	0,1	8.42314	163,8	1.57686
.0266	.42493	163,3	.00015		.42478	163,2	.57522
.0267	.42656	162,7	.00015		.42641	162,6	.57359
.0268	.42819	162,1	.00016		.42803	162,0	.57197
.0269	.42980	161,5	.00016		.42965	161,4	.57035
0.0270	8.43142	160,9	0.00016	0,1	8.43126	160,8	1.56874
.0271	.43302	160,3	.00016		.43286	160,2	.56714
.0272	.43462	159,7	.00016		.43446	159,6	.56554
.0273	.43622	159,1	.00016		.43605	159,0	.56395
.0274	.43780	158,5	.00016		.43764	158,4	.56236
0.0275	8.43939	158,0	0.00016	0,1	8.43922	157,8	1.56078
.0276	.44096	157,4	.00017		.44080	157,3	.55920
.0277	.44254	156,8	.00017		.44237	156,7	.55763
.0278	.44410	156,3	.00017		.44393	156,1	.55607
.0279	.44566	155,7	.00017		.44549	155,6	.55451
0.0280	8.44721	155,1	0.00017	0,1	8.44704	155,0	1.55296
.0281	.44876	154,6	.00017		.44859	154,5	.55141
.0282	.45031	154,0	.00017		.45013	153,9	.54987
.0283	.45184	153,5	.00017		.45167	153,4	.54833
.0284	.45338	153,0	.00018		.45320	152,8	.54680
0.0285	8.45490	152,4	0.00018	0,1	8.45473	152,3	1.54527
.0286	.45643	151,9	.00018		.45625	151,8	.54375
.0287	.45794	151,4	.00018		.45776	151,2	.54224
.0288	.45945	150,8	.00018		.45927	150,7	.54073
.0289	.46096	150,3	.00018		.46078	150,2	.53922
0.0290	8.46246	149,8	0.00018	0,1	8.46228	149,7	1.53772
.0291	.46395	149,3	.00018		.46377	149,2	.53623
.0292	.46544	148,8	.00019		.46526	148,6	.53474
.0293	.46693	148,3	.00019		.46674	148,1	.53326
.0294	.46841	147,8	.00019		.46822	147,6	.53178
0.0295	8.46989	147,3	0.00019	0,1	8.46970	147,1	1.53030
.0296	.47136	146,8	.00019		.47116	146,6	.52884
.0297	.47282	146,3	.00019		.47263	146,1	.52737
.0298	.47428	145,8	.00019		.47409	145,7	.52591
.0299	.47574	145,3	.00019		.47554	145,2	.52446
0.0300	8.47719	144,8	0.00020	0,1	8.47699	144,7	1.52301
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0300	8.47719	144,8	0.00020	0,1	8.47699	144,7	1.52301
.0301	.47863	144,3	.00020		.47844	144,2	.52156
.0302	.48007	143,8	.00020		.47987	143,7	.52013
.0303	.48151	143,4	.00020		.48131	143,2	.51869
.0304	.48294	142,9	.00020		.48274	142,8	.51726
0.0305	8.48437	142,4	0.00020	0,1	8.48417	142,3	1.51583
.0306	.48579	142,0	.00020		.48559	141,8	.51441
.0307	.48721	141,5	.00020		.48700	141,4	.51300
.0308	.48862	141,0	.00021		.48841	140,9	.51159
.0309	.49003	140,6	.00021		.48982	140,5	.51018
0.0310	8.49143	140,1	0.00021	0,1	8.49122	140,0	1.50878
.0311	.49283	139,7	.00021		.49262	139,6	.50738
.0312	.49423	139,2	.00021		.49401	139,1	.50599
.0313	.49562	138,8	.00021		.49540	138,7	.50460
.0314	.49700	138,4	.00021		.49679	138,2	.50321
0.0315	8.49838	137,9	0.00022	0,1	8.49817	137,8	1.50183
.0316	.49976	137,5	.00022		.49954	137,3	.50046
.0317	.50113	137,0	.00022		.50091	136,9	.49909
.0318	.50250	136,6	.00022		.50228	136,5	.49772
.0319	.50386	136,2	.00022		.50364	136,1	.49636
0.0320	8.50522	135,8	0.00022	0,1	8.50500	135,6	1.49500
.0321	.50658	135,3	.00022		.50636	135,2	.49364
.0322	.50793	134,9	.00023		.50771	134,8	.49229
.0323	.50928	134,5	.00023		.50905	134,4	.49095
.0324	.51062	134,1	.00023		.51039	133,9	.48961
0.0325	8.51196	133,7	0.00023	0,1	8.51173	133,5	1.48827
.0326	.51329	133,3	.00023		.51306	133,1	.48694
.0327	.51463	132,9	.00023		.51439	132,7	.48561
.0328	.51595	132,5	.00023		.51572	132,3	.48428
.0329	.51727	132,1	.00023		.51704	131,9	.48296
0.0330	8.51859	131,7	0.00024	0,1	8.51836	131,5	1.48164
.0331	.51991	131,3	.00024		.51967	131,1	.48033
.0332	.52122	130,9	.00024		.52098	130,7	.47902
.0333	.52252	130,5	.00024		.52228	130,3	.47772
.0334	.52383	130,1	.00024		.52358	129,9	.47642
0.0335	8.52513	129,7	0 00024	0,1	8.52488	129,5	1.47512
.0336	.52642	129,3	.00025		.52618	129,2	.47382
.0337	.52771	128,9	.00025		.52747	128,8	.47253
.0338	.52900	128,5	.00025		.52875	128,4	.47125
.0339	.53028	128,2	.00025		.53003	128,0	.46997
0.0340	8.53156	127,8	0.00025	0,1	8.53131	127,6	1.46869
.0341	.53284	127,4	.00025		.53259	127,3	.46741
.0342	.53411	127,0	.00025		.53386	126,9	.46614
.0343	.53538	126,7	.00026		.53512	126,5	.46488
.0344	.53664	126,3	.00026		.53639	126,1	.46361
0.0345	8.53791	125,9	0.00026	0,1	8.53765	125,8	1.46235
.0346	.53916	125,6	.00026	0,2	.53890	125,4	.46110
.0347	.54042	125,2	.00026		.54016	125,1	.45984
.0348	.54167	124,8	.00026		.54140	124,7	.45860
.0349	.54291	124,5	.00026		.54265	124,3	.45735
0.0350	8.54416	124,1	0.00027	0,2	8.54389	124,0	1.45611
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.0350	8.54416	124,1	0.00027	0,2	8.54389	124,0	$\bar{1}$.45611
.0351	.54540	123,8	.00027		.54513	123,6	.45487
.0352	.54663	123,4	.00027		.54636	123,3	.45364
.0353	.54786	123,1	.00027		.54759	122,9	.45241
.0354	.54909	122,7	.00027		.54882	122,6	.45118
0.0355	8.55032	122,4	0.00027	0,2	8.55005	122,2	$\bar{1}$.44995
.0356	.55154	122,0	.00028		.55127	121,9	.44873
.0357	.55276	121,7	.00028		.55248	121,5	.44752
.0358	.55398	121,4	.00028		.55370	121,2	.44630
.0359	.55519	121,0	.00028		.55491	120,9	.44509
0.0360	8.55640	120,7	0.00028	0,2	8.55611	120,5	$\bar{1}$.44389
.0361	.55760	120,4	.00028		.55732	120,2	.44268
.0362	.55880	120,0	.00028		.55852	119,9	.44148
.0363	.56000	119,7	.00029		.55972	119,5	.44028
.0364	.56120	119,4	.00029		.56091	119,2	.43909
0.0365	8.56239	119,0	0.00029	0,2	8.56210	118,9	$\bar{1}$.43790
.0366	.56358	118,7	.00029		.56329	118,6	.43671
.0367	.56476	118,4	.00029		.56447	118,2	.43553
.0368	.56595	118,1	.00029		.56565	117,9	.43435
.0369	.56712	117,7	.00030		.56683	117,6	.43317
0.0370	8.56830	117,4	0.00030	0,2	8.56800	117,3	$\bar{1}$.43200
.0371	.56947	117,1	.00030		.56917	117,0	.43083
.0372	.57064	116,8	.00030		.57034	116,6	.42966
.0373	.57181	116,5	.00030		.57151	116,3	.42849
.0374	.57297	116,2	.00030		.57267	116,0	.42733
0.0375	8.57413	115,9	0.00031	0,2	8.57383	115,7	$\bar{1}$.42617
.0376	.57529	115,6	.00031		.57498	115,4	.42502
.0377	.57644	115,3	.00031		.57614	115,1	.42386
.0378	.57760	114,9	.00031		.57729	114,8	.42271
.0379	.57874	114,6	.00031		.57843	114,5	.42157
0.0380	8.57989	114,3	0.00031	0,2	8.57957	114,2	$\bar{1}$.42043
.0381	.58103	114,0	.00032		.58071	113,9	.41929
.0382	.58217	113,7	.00032		.58185	113,6	.41815
.0383	.58330	113,4	.00032		.58299	113,3	.41701
.0384	.58444	113,2	.00032		.58412	113,0	.41588
0.0385	8.58557	112,9	0.00032	0,2	8.58525	112,7	$\bar{1}$.41475
.0386	.58670	112,6	.00032		.58637	112,4	.41363
.0387	.58782	112,3	.00033		.58749	112,1	.41251
.0388	.58894	112,0	.00033		.58861	111,8	.41139
.0389	.59006	111,7	.00033		.58973	111,5	.41027
0.0390	8.59117	111,4	0.00033	0,2	8.59084	111,2	$\bar{1}$.40916
.0391	.59229	111,1	.00033		.59196	111,0	.40804
.0392	.59340	110,8	.00033		.59306	110,7	.40694
.0393	.59450	110,6	.00034		.59417	110,4	.40583
.0394	.59561	110,3	.00034		.59527	110,1	.40473
0.0395	8.59671	110,0	0.00034	0,2	8.59637	109,8	$\bar{1}$.40363
.0396	.59781	109,7	.00034		.59747	109,6	.40253
.0397	.59890	109,5	.00034		.59856	109,3	.40144
.0398	.60000	109,2	.00034		.59965	109,0	.40035
.0399	.60109	108,9	.00035		.60074	108,7	.39926
0.0400	8.60218	108,6	0.00035	0,2	8.60183	108,5	$\bar{1}$.39817
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0400	8.60218	108,6	0.00035	0,2	8.60183	108,5	1.39817
.0401	.60326	108,4	.00035		.60291	108,2	.39709
.0402	.60434	108,1	.00035		.60399	107,9	.39601
.0403	.60542	107,8	.00035		.60507	107,6	.39493
.0404	.60650	107,6	.00035		.60615	107,4	.39385
0.0405	8.60757	107,3	0.00036	0,2	8.60722	107,1	1.39278
.0406	.60865	107,0	.00036		.60829	106,9	.39171
.0407	.60971	106,8	.00036		.60935	106,6	.39065
.0408	.61078	106,5	.00036		.61042	106,3	.38958
.0409	.61184	106,2	.00036		.61148	106,1	.38852
0.0410	8.61291	106,0	0.00036	0,2	8.61254	105,8	1.38746
.0411	.61396	105,7	.00037		.61360	105,5	.38640
.0412	.61502	105,5	.00037		.61465	105,3	.38535
.0413	.61607	105,2	.00037		.61570	105,0	.38430
.0414	.61712	105,0	.00037		.61675	104,8	.38325
0.0415	8.61817	104,7	0.00037	0,2	8.61780	104,5	1.38220
.0416	.61922	104,5	.00038		.61884	104,3	.38116
.0417	.62026	104,2	.00038		.61988	104,0	.38012
.0418	.62130	104,0	.00038		.62092	103,8	.37908
.0419	.62234	103,7	.00038		.62196	103,5	.37804
0.0420	8.62338	103,5	0.00038	0,2	8.62299	103,3	1.37701
.0421	.62441	103,2	.00038		.62403	103,0	.37597
.0422	.62544	103,0	.00039		.62505	102,8	.37495
.0423	.62647	102,7	.00039		.62608	102,5	.37392
.0424	.62750	102,5	.00039		.62711	102,3	.37289
0.0425	8.62852	102,2	0.00039	0,2	8.62813	102,1	1.37187
.0426	.62954	102,0	.00039		.62915	101,8	.37085
.0427	.63056	101,8	.00040		.63016	101,6	.36984
.0428	.63158	101,5	.00040		.63118	101,3	.36882
.0429	.63259	101,3	.00040		.63219	101,1	.36781
0.0430	8.63360	101,1	0.00040	0,2	8.63320	100,9	1.36680
.0431	.63461	100,8	.00040		.63421	100,6	.36579
.0432	.63562	100,6	.00041		.63521	100,4	.36479
.0433	.63662	100,4	.00041		.63622	100,2	.36378
.0434	.63763	100,1	.00041		.63722	99,9	.36278
0.0435	8.63863	99,9	0.00041	0,2	8.63822	99,7	1.36178
.0436	.63962	99,7	.00041		.63921	99,5	.36079
.0437	.64062	99,4	.00041		.64020	99,3	.35980
.0438	.64161	99,2	.00042		.64120	99,0	.35880
.0439	.64260	99,0	.00042		.64219	98,8	.35781
0.0440	8.64359	98,8	0.00042	0,2	8.64317	98,6	1.35683
.0441	.64458	98,5	.00042		.64416	98,4	.35584
.0442	.64556	98,3	.00042		.64514	98,1	.35486
.0443	.64655	98,1	.00043		.64612	97,9	.35388
.0444	.64753	97,9	.00043		.64710	97,7	.35290
0.0445	8.64850	97,7	0.00043	0,2	8.64807	97,5	1.35193
.0446	.64948	97,4	.00043		.64905	97,2	.35095
.0447	.65045	97,2	.00043		.65002	97,0	.34998
.0448	.65142	97,0	.00044		.65099	96,8	.34901
.0449	.65239	96,8	.00044		.65195	96,6	.34805
0.0450	8.65336	96,6	0.00044	0,2	8.65292	96,4	1.34708
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.0450	8.65336	96,6	0.00044	0,2	8.65292	96,4	1.34708
.0451	.65432	96,4	.00044		.65388	96,2	.34612
.0452	.65529	96,1	.00044		.65484	96,0	.34516
.0453	.65625	95,9	.00045		.65580	95,7	.34420
.0454	.65721	95,7	.00045		.65676	95,5	.34324
0.0455	8.65816	95,5	0.00045	0,2	8.65771	95,3	1.34229
.0456	.65912	95,3	.00045		.65866	95,1	.34134
.0457	.66007	95,1	.00045		.65961	94,9	.34039
.0458	.66102	94,9	.00046		.66056	94,7	.33944
.0459	.66197	94,7	.00046		.66151	94,5	.33849
0.0460	8.66291	94,5	0.00046	0,2	8.66245	94,3	1.33755
.0461	.66385	94,3	.00046		.66339	94,1	.33661
.0462	.66480	94,1	.00046		.66433	93,9	.33567
.0463	.66574	93,9	.00047		.66527	93,7	.33473
.0464	.66667	93,7	.00047		.66621	93,5	.33379
0.0465	8.66761	93,5	0.00047	0,2	8.66714	93,3	1.33286
.0466	.66854	93,3	.00047		.66807	93,1	.33193
.0467	.66947	93,1	.00047		.66900	92,9	.33100
.0468	.67040	92,9	.00048		.66993	92,7	.33007
.0469	.67133	92,7	.00048		.67085	92,5	.32915
0.0470	8.67226	92,5	0.00048	0,2	8.67178	92,3	1.32822
.0471	.67318	92,3	.00048		.67270	92,1	.32730
.0472	.67410	92,1	.00048		.67362	91,9	.32638
.0473	.67502	91,9	.00049		.67454	91,7	.32546
.0474	.67594	91,7	.00049		.67545	91,5	.32455
0.0475	8.67686	91,5	0.00049	0,2	8.67637	91,3	1.32363
.0476	.67777	91,3	.00049		.67728	91,1	.32272
.0477	.67868	91,1	.00049		.67819	90,9	.32181
.0478	.67959	90,9	.00050		.67910	90,7	.32090
.0479	.68050	90,7	.00050		.68000	90,5	.32000
0.0480	8.68141	90,5	0.00050	0,2	8.68091	90,3	1.31909
.0481	.68231	90,4	.00050		.68181	90,2	.31819
.0482	.68322	90,2	.00050		.68271	90,0	.31729
.0483	.68412	90,0	.00051		.68361	89,8	.31639
.0484	.68501	89,8	.00051		.68451	89,6	.31549
0.0485	8.68591	89,6	0.00051	0,2	8.68540	89,4	1.31460
.0486	.68681	89,4	.00051		.68629	89,2	.31371
.0487	.68770	89,2	.00051		.68719	89,0	.31281
.0488	.68859	89,1	.00052		.68808	88,9	.31192
.0489	.68948	88,9	.00052		.68896	88,7	.31104
0.0490	8.69037	88,7	0.00052	0,2	8.68985	88,5	1.31015
.0491	.69126	88,5	.00052		.69073	88,3	.30927
.0492	.69214	88,3	.00053		.69161	88,1	.30839
.0493	.69302	88,2	.00053		.69250	87,9	.30750
.0494	.69390	88,0	.00053		.69337	87,8	.30663
0.0495	8.69478	87,8	0.00053	0,2	8.69425	87,6	1.30575
.0496	.69566	87,6	.00053		.69513	87,4	.30487
.0497	.69654	87,5	.00054		.69600	87,2	.30400
.0498	.69741	87,3	.00054		.69687	87,1	.30313
.0499	.69828	87,1	.00054		.69774	86,9	.30226
0.0500	8.69915	86,9	0.00054	0,2	8.69861	86,7	1.30139
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

Logarithms of Hyperbolic Functions.

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0500	8.69915	86,9	0.00054	0,2	8.69861	86,7	1.30139
.0501	.70002	86,8	.00054		.69947	86,5	.30053
.0502	.70089	86,6	.00055		.70034	86,4	.29966
.0503	.70175	86,4	.00055		.70120	86,2	.29880
.0504	.70261	86,2	.00055		.70206	86,0	.29794
0.0505	8.70348	86,1	0.00055	0,2	8.70292	85,9	1.29708
.0506	.70434	85,9	.00056		.70378	85,7	.29622
.0507	.70519	85,7	.00056		.70464	85,5	.29536
.0508	.70605	85,6	.00056		.70549	85,3	.29451
.0509	.70691	85,4	.00056		.70634	85,2	.29366
0.0510	8.70776	85,2	0.00056	0,2	8.70719	85,0	1.29281
.0511	.70861	85,1	.00057		.70804	84,8	.29196
.0512	.70946	84,9	.00057		.70889	84,7	.29111
.0513	.71031	84,7	.00057		.70974	84,5	.29026
.0514	.71115	84,6	.00057		.71058	84,3	.28942
0.0515	8.71200	84,4	0.00058	0,2	8.71142	84,2	1.28858
.0516	.71284	84,2	.00058		.71226	84,0	.28774
.0517	.71368	84,1	.00058		.71310	83,9	.28690
.0518	.71452	83,9	.00058		.71394	83,7	.28606
.0519	.71536	83,8	.00058		.71478	83,5	.28522
0.0520	8.71620	83,6	0.00059	0,2	8.71561	83,4	1.28439
.0521	.71703	83,4	.00059		.71644	83,2	.28356
.0522	.71787	83,3	.00059		.71728	83,0	.28272
.0523	.71870	83,1	.00059		.71811	82,9	.28189
.0524	.71953	83,0	.00060		.71893	82,7	.28107
0.0525	8.72036	82,8	0.00060	0,2	8.71976	82,6	1.28024
.0526	.72119	82,6	.00060		.72059	82,4	.27941
.0527	.72201	82,5	.00060		.72141	82,3	.27859
.0528	.72284	82,3	.00061		.72223	82,1	.27777
.0529	.72366	82,2	.00061		.72305	81,9	.27695
0.0530	8.72448	82,0	0.00061	0,2	8.72387	81,8	1.27613
.0531	.72530	81,9	.00061		.72469	81,6	.27531
.0532	.72612	81,7	.00061		.72550	81,5	.27450
.0533	.72693	81,6	.00062		.72632	81,3	.27368
.0534	.72775	81,4	.00062		.72713	81,2	.27287
0.0535	8.72856	81,3	0.00062	0,2	8.72794	81,0	1.27206
.0536	.72937	81,1	.00062		.72875	80,9	.27125
.0537	.73018	81,0	.00063		.72956	80,7	.27044
.0538	.73099	80,8	.00063		.73036	80,6	.26964
.0539	.73180	80,7	.00063		.73117	80,4	.26883
0.0540	8.73260	80,5	0.00063	0,2	8.73197	80,3	1.26803
.0541	.73341	80,4	.00064		.73277	80,1	.26723
.0542	.73421	80,2	.00064		.73357	80,0	.26643
.0543	.73501	80,1	.00064		.73436	79,8	.26564
.0544	.73581	79,9	.00064		.73517	79,7	.26483
0.0545	8.73661	79,8	0.00064	0,2	8.73597	79,5	1.26403
.0546	.73741	79,6	.00065		.73676	79,4	.26324
.0547	.73820	79,5	.00065		.73755	79,2	.26245
.0548	.73900	79,3	.00065		.73835	79,1	.26165
.0549	.73979	79,2	.00065		.73914	78,9	.26086
0.0550	8.74058	79,0	0.00066	0,2	8.73993	78,8	1.26007
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0550	8.74058	79,0	0.00066	0,2	8.73993	78,8	1.26007
.0551	.74137	78,9	.00066		.74071	78,7	.25929
.0552	.74216	78,8	.00066		.74150	78,5	.25850
.0553	.74295	78,6	.00066		.74228	78,4	.25772
.0554	.74373	78,5	.00067		.74307	78,2	.25693
0.0555	8.74452	78,3	0.00067	0,2	8.74385	78,1	1.25615
.0556	.74530	78,2	.00067		.74463	77,9	.25537
.0557	.74608	78,0	.00067		.74541	77,8	.25459
.0558	.74686	77,9	.00068		.74618	77,7	.25382
.0559	.74764	77,8	.00068		.74696	77,5	.25304
0.0560	8.74841	77,6	0.00068	0,2	8.74773	77,4	1.25227
.0561	.74919	77,5	.00068		.74851	77,3	.25149
.0562	.74996	77,4	.00069		.74928	77,1	.25072
.0563	.75074	77,2	.00069		.75005	77,0	.24995
.0564	.75151	77,1	.00069		.75082	76,8	.24918
0.0565	8.75228	76,9	0.00069	0,2	8.75159	76,7	1.24841
.0566	.75305	76,8	.00070		.75235	76,6	.24765
.0567	.75382	76,7	.00070		.75312	76,4	.24688
.0568	.75458	76,5	.00070		.75388	76,3	.24612
.0569	.75535	76,4	.00070		.75464	76,2	.24536
0.0570	8.75611	76,3	0.00071	0,2	8.75540	76,0	1.24460
.0571	.75687	76,1	.00071		.75616	75,9	.24384
.0572	.75763	76,0	.00071		.75692	75,8	.24308
.0573	.75839	75,9	.00071		.75768	75,6	.24232
.0574	.75915	75,7	.00072		.75844	75,5	.24156
0.0575	8.75991	75,6	0.00072	0,2	8.75919	75,4	1.24081
.0576	.76066	75,5	.00072	0,2	.75994	75,2	.24006
.0577	.76142	75,4	.00072	0,3	.76069	75,1	.23931
.0578	.76217	75,2	.00073		.76144	75,0	.23856
.0579	.76292	75,1	.00073		.76219	74,8	.23781
0.0580	8.76367	75,0	0.00073	0,3	8.76294	74,7	1.23706
.0581	.76442	74,8	.00073		.76369	74,6	.23631
.0582	.76517	74,7	.00074		.76443	74,5	.23557
.0583	.76591	74,6	.00074		.76518	74,3	.23482
.0584	.76666	74,5	.00074		.76592	74,2	.23408
0.0585	8.76740	74,3	0.00074	0,3	8.76666	74,1	1.23334
.0586	.76815	74,2	.00075		.76740	73,9	.23260
.0587	.76889	74,1	.00075		.76814	73,8	.23186
.0588	.76963	73,9	.00075		.76888	73,7	.23112
.0589	.77037	73,8	.00075		.76961	73,6	.23039
0.0590	8.77110	73,7	0.00076	0,3	8.77035	73,4	1.22965
.0591	.77184	73,6	.00076		.77108	73,3	.22892
.0592	.77258	73,4	.00076		.77181	73,2	.22819
.0593	.77331	73,3	.00076		.77255	73,1	.22745
.0594	.77404	73,2	.00077		.77328	72,9	.22672
0.0595	8.77477	73,1	0.00077	0,3	8.77400	72,8	1.22600
.0596	.77550	73,0	.00077		.77473	72,7	.22527
.0597	.77623	72,8	.00077		.77546	72,6	.22454
.0598	.77696	72,7	.00078		.77618	72,5	.22382
.0599	.77769	72,6	.00078		.77691	72,3	.22309
0.0600	8.77841	72,5	0.00078	0,3	8.77763	72,2	1.22237
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0600	8.77841	72,5	0.00078	0,3	8.77763	72,2	1.22237
.0601	.77914	72,3	.00078		.77835	72,1	.22165
.0602	.77986	72,2	.00079		.77907	72,0	.22093
.0603	.78058	72,1	.00079		.77979	71,8	.22021
.0604	.78130	72,0	.00079		.78051	71,7	.21949
0.0605	8.78202	71,9	0.00079	0,3	8.78123	71,6	1.21877
.0606	.78274	71,8	.00080		.78194	71,5	.21806
.0607	.78346	71,6	.00080		.78266	71,4	.21734
.0608	.78417	71,5	.00080		.78337	71,3	.21663
.0609	.78489	71,4	.00080		.78408	71,1	.21592
0.0610	8.78560	71,3	0.00081	0,3	8.78479	71,0	1.21521
.0611	.78631	71,2	.00081		.78550	70,9	.21450
.0612	.78702	71,1	.00081		.78621	70,8	.21379
.0613	.78773	70,9	.00082		.78692	70,7	.21308
.0614	.78844	70,8	.00082		.78762	70,6	.21238
0.0615	8.78915	70,7	0.00082	0,3	8.78833	70,4	1.21167
.0616	.78986	70,6	.00082		.78903	70,3	.21097
.0617	.79056	70,5	.00083		.78973	70,2	.21027
.0618	.79127	70,4	.00083		.79044	70,1	.20956
.0619	.79197	70,3	.00083		.79114	70,0	.20886
0.0620	8.79267	70,1	0.00083	0,3	8.79184	69,9	1.20816
.0621	.79337	70,0	.00084		.79253	69,8	.20747
.0622	.79407	69,9	.00084		.79323	69,6	.20677
.0623	.79477	69,8	.00084		.79393	69,5	.20607
.0624	.79547	69,7	.00084		.79462	69,4	.20538
0.0625	8.79616	69,6	0.00085	0,3	8.79532	69,3	1.20468
.0626	.79686	69,5	.00085		.79601	69,2	.20399
.0627	.79755	69,4	.00085		.79670	69,1	.20330
.0628	.79825	69,2	.00086		.79739	69,0	.20261
.0629	.79894	69,1	.00086		.79808	68,9	.20192
0.0630	8.79963	69,0	0.00086	0,3	8.79877	68,8	1.20123
.0631	.80032	68,9	.00086		.79945	68,6	.20055
.0632	.80101	68,8	.00087		.80014	68,5	.19986
.0633	.80169	68,7	.00087		.80082	68,4	.19918
.0634	.80238	68,6	.00087		.80151	68,3	.19849
0.0635	8.80307	68,5	0.00088	0,3	8.80219	68,2	1.19781
.0636	.80375	68,4	.00088		.80287	68,1	.19713
.0637	.80443	68,3	.00088		.80355	68,0	.19645
.0638	.80512	68,2	.00088		.80423	67,9	.19577
.0639	.80580	68,1	.00089		.80491	67,8	.19509
0.0640	8.80648	68,0	0.00089	0,3	8.80559	67,7	1.19441
.0641	.80716	67,8	.00089		.80626	67,6	.19374
.0642	.80783	67,7	.00089		.80694	67,5	.19306
.0643	.80851	67,6	.00090		.80761	67,4	.19239
.0644	.80919	67,5	.00090		.80829	67,3	.19171
0.0645	8.80986	67,4	0.00090	0,3	8.80896	67,1	1.19104
.0646	.81053	67,3	.00091		.80963	67,0	.19037
.0647	.81121	67,2	.00091		.81030	66,9	.18970
.0648	.81188	67,1	.00091		.81097	66,8	.18903
.0649	.81255	67,0	.00091		.81164	66,7	.18836
0.0650	8.81322	66,9	0.00092	0,3	8.81230	66,6	1.18770
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0650	8.81322	66,9	0.00092	0,3	8.81230	66,6	1.18770
.0651	.81389	66,8	.00092		.81297	66,5	.18703
.0652	.81456	66,7	.00092		.81363	66,4	.18637
.0653	.81522	66,6	.00093		.81430	66,3	.18570
.0654	.81589	66,5	.00093		.81496	66,2	.18504
0.0655	8.81655	66,4	0.00093	0,3	8.81562	66,1	1.18438
.0656	.81722	66,3	.00093		.81628	66,0	.18372
.0657	.81788	66,2	.00094		.81694	65,9	.18306
.0658	.81854	66,1	.00094		.81760	65,8	.18240
.0659	.81920	66,0	.00094		.81826	65,7	.18174
0.0660	8.81986	65,9	0.00095	0,3	8.81891	65,6	1.18109
.0661	.82052	65,8	.00095		.81957	65,5	.18043
.0662	.82118	65,7	.00095		.82022	65,4	.17978
.0663	.82183	65,6	.00095		.82088	65,3	.17912
.0664	.82249	65,5	.00096		.82153	65,2	.17847
0.0665	8.82314	65,4	0.00096	0,3	8.82218	65,1	1.17782
.0666	.82380	65,3	.00096		.82283	65,0	.17717
.0667	.82445	65,2	.00097		.82348	64,9	.17652
.0668	.82510	65,1	.00097		.82413	64,8	.17587
.0669	.82575	65,0	.00097		.82478	64,7	.17522
0.0670	8.82640	64,9	0.00097	0,3	8.82543	64,6	1.17457
.0671	.82705	64,8	.00098		.82607	64,5	.17393
.0672	.82770	64,7	.00098		.82672	64,4	.17328
.0673	.82834	64,6	.00098		.82736	64,3	.17264
.0674	.82899	64,5	.00099		.82800	64,2	.17200
0.0675	8.82963	64,4	0.00099	0,3	8.82864	64,1	1.17136
.0676	.83028	64,3	.00099		.82929	64,1	.17071
.0677	.83092	64,2	.00099		.82994	64,0	.17006
.0678	.83156	64,2	.00100		.83056	63,9	.16944
.0679	.83220	64,1	.00100		.83120	63,8	.16880
0.0680	8.83284	64,0	0.00100	0,3	8.83184	63,7	1.16816
.0681	.83348	63,9	.00101		.83248	63,6	.16752
.0682	.83412	63,8	.00101		.83311	63,5	.16689
.0683	.83476	63,7	.00101		.83375	63,4	.16625
.0684	.83539	63,6	.00102		.83438	63,3	.16562
0.0685	8.83603	63,5	0.00102	0,3	8.83501	63,2	1.16499
.0686	.83666	63,4	.00102		.83564	63,1	.16436
.0687	.83730	63,3	.00102		.83627	63,0	.16373
.0688	.83793	63,2	.00103		.83690	62,9	.16310
.0689	.83856	63,1	.00103		.83753	62,8	.16247
0.0690	8.83919	63,0	0.00103	0,3	8.83816	62,7	1.16184
.0691	.83982	63,0	.00104		.83879	62,7	.16121
.0692	.84045	62,9	.00104		.83941	62,6	.16059
.0693	.84108	62,8	.00104		.84004	62,5	.15996
.0694	.84171	62,7	.00105		.84066	62,4	.15934
0.0695	8.84233	62,6	0.00105	0,3	8.84129	62,3	1.15871
.0696	.84296	62,5	.00105		.84191	62,2	.15809
.0697	.84358	62,4	.00105		.84253	62,1	.15747
.0698	.84421	62,3	.00106		.84315	62,0	.15685
.0699	.84483	62,2	.00106		.84377	61,9	.15623
0.0700	8.84545	62,1	0.00106	0,3	8.84439	61,8	1.15561
u	**log tan gd u**	**ω F_0'**	**log sec gd u**	**ω F_0'**	**log sin gd u**	**ω F_0'**	**log csc gd u**

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0700	8.84545	62,1	0.00106	0,3	8.84439	61,8	1.15561
.0701	.84607	62,1	.00107		.84501	61,8	.15499
.0702	.84669	62,0	.00107		.84562	61,7	.15438
.0703	.84731	61,9	.00107		.84624	61,6	.15376
.0704	.84793	61,8	.00108		.84686	61,5	.15314
0.0705	8.84855	61,7	0.00108	0,3	8.84747	61,4	1.15253
.0706	.84917	61,6	.00108		.84808	61,3	.15192
.0707	.84978	61,5	.00108		.84870	61,2	.15130
.0708	.85040	61,4	.00109		.84931	61,1	.15069
.0709	.85101	61,4	.00109		.84992	61,0	.15008
0.0710	8.85162	61,3	0.00109	0,3	8.85053	61,0	1.14947
.0711	.85224	61,2	.00110		.85114	60,9	.14886
.0712	.85285	61,1	.00110		.85175	60,8	.14825
.0713	.85346	61,0	.00110		.85235	60,7	.14765
.0714	.85407	60,9	.00111		.85296	60,6	.14704
0.0715	8.85468	60,8	0.00111	0,3	8.85357	60,5	1.14643
.0716	.85528	60,8	.00111		.85417	60,4	.14583
.0717	.85589	60,7	.00112		.85478	60,4	.14522
.0718	.85650	60,6	.00112		.85538	60,3	.14462
.0719	.85710	60,5	.00112		.85598	60,2	.14402
0.0720	8.85771	60,4	0.00112	0,3	8.85658	60,1	1.14342
.0721	.85831	60,3	.00113		.85718	60,0	.14282
.0722	.85891	60,3	.00113		.85778	59,9	.14222
.0723	.85952	60,2	.00113		.85838	59,9	.14162
.0724	.86012	60,1	.00114		.85898	59,8	.14102
0.0725	8.86072	60,0	0.00114	0,3	8.85958	59,7	1.14042
.0726	.86132	59,9	.00114		.86017	59,6	.13983
.0727	.86192	59,8	.00115		.86077	59,5	.13923
.0728	.86251	59,8	.00115		.86137	59,5	.13863
.0729	.86311	59,7	.00115		.86196	59,4	.13804
0.0730	8.86371	59,6	0.00116	0,3	8.86255	59,3	1.13745
.0731	.86430	59,5	.00116		.86314	59,2	.13686
.0732	.86490	59,4	.00116		.86374	59,1	.13626
.0733	.86549	59,4	.00117		.86433	59,0	.13567
.0734	.86609	59,3	.00117		.86492	59,0	.13508
0.0735	8.86668	59,2	0.00117	0,3	8.86551	58,9	1.13449
.0736	.86727	59,1	.00118		.86609	58,8	.13391
.0737	.86786	59,0	.00118		.86668	58,7	.13332
.0738	.86845	59,0	.00118		.86727	58,6	.13273
.0739	.86904	58,9	.00118		.86785	58,6	.13215
0.0740	8.86963	58,8	0.00119	0,3	8.86844	58,5	1.13156
.0741	.87022	58,7	.00119		.86902	58,4	.13098
.0742	.87080	58,6	.00119		.86961	58,3	.13039
.0743	.87139	58,6	.00120		.87019	58,2	.12981
.0744	.87197	58,5	.00120		.87077	58,2	.12923
0.0745	8.87256	58,4	0.00120	0,3	8.87135	58,1	1.12865
.0746	.87314	58,3	.00121		.87193	58,0	.12807
.0747	.87372	58,2	.00121		.87251	57,9	.12749
.0748	.87431	58,2	.00121		.87309	57,8	.12691
.0749	.87489	58,1	.00122		.87367	57,8	.12633
0.0750	8.87547	58,0	0.00122	0,3	8.87425	57,7	1.12575
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.0750	8.87547	58,0	0.00122	0,3	8.87425	57,7	1.12575
.0751	.87605	57,9	.00122		.87482	57,6	.12518
.0752	.87663	57,9	.00123		.87540	57,5	.12460
.0753	.87721	57,8	.00123		.87598	57,5	.12402
.0754	.87778	57,7	.00123		.87655	57,4	.12345
0.0755	8.87836	57,6	0.00124	0,3	8.87712	57,3	1.12288
.0756	.87894	57,6	.00124		.87770	57,2	.12230
.0757	.87951	57,5	.00124		.87827	57,2	.12173
.0758	.88009	57,4	.00125		.87884	57,1	.12116
.0759	.88066	57,3	.00125		.87941	57,0	.12059
0.0760	8.88123	57,3	0.00125	0,3	8.87998	56,9	1.12002
.0761	.88180	57,2	.00126		.88055	56,8	.11945
.0762	.88238	57,1	.00126		.88112	56,8	.11888
.0763	.88295	57,0	.00126		.88168	56,7	.11832
.0764	.88352	57,0	.00127		.88225	56,6	.11775
0.0765	8.88408	56,9	0.00127	0,3	8.88282	56,5	1.11718
.0766	.88465	56,8	.00127		.88338	56,5	.11662
.0767	.88522	56,7	.00128		.88394	56,4	.11606
.0768	.88579	56,7	.00128		.88451	56,3	.11549
.0769	.88635	56,6	.00128		.88507	56,3	.11493
0.0770	8.88692	56,5	0.00129	0,3	8.88563	56,2	1.11437
.0771	.88748	56,4	.00129		.88620	56,1	.11380
.0772	.88805	56,4	.00129		.88676	56,0	.11324
.0773	.88861	56,3	.00130		.88732	56,0	.11268
.0774	.88917	56,2	.00130		.88787	55,9	.11213
0.0775	8.88974	56,2	0.00130	0,3	8.88843	55,8	1.11157
.0776	.89030	56,1	.00131		.88899	55,7	.11101
.0777	.89086	56,0	.00131		.88955	55,7	.11045
.0778	.89142	55,9	.00131		.89010	55,6	.10990
.0779	.89198	55,9	.00132		.89066	55,5	.10934
0.0780	8.89253	55,8	0.00132	0,3	8.89122	55,5	1.10878
.0781	.89309	55,7	.00132		.89177	55,4	.10823
.0782	.89365	55,6	.00133		.89232	55,3	.10768
.0783	.89421	55,6	.00133		.89288	55,2	.10712
.0784	.89476	55,5	.00133		.89343	55,2	.10657
0.0785	8.89532	55,4	0.00134	0,3	8.89398	55,1	1.10602
.0786	.89587	55,4	.00134		.89453	55,0	.10547
.0787	.89642	55,3	.00134		.89508	55,0	.10492
.0788	.89698	55,2	.00135		.89563	54,9	.10437
.0789	.89753	55,2	.00135		.89618	54,8	.10382
0.0790	8.89808	55,1	0.00135	0,3	8.89672	54,7	1.10328
.0791	.89863	55,0	.00136		.89727	54,7	.10273
.0792	.89918	54,9	.00136		.89782	54,6	.10218
.0793	.89973	54,9	.00136		.89836	54,5	.10164
.0794	.90028	54,8	.00137		.89891	54,5	.10109
0.0795	8.90082	54,7	0.00137	0,3	8.89945	54,4	1.10055
.0796	.90137	54,7	.00137		.90000	54,3	.10000
.0797	.90192	54,6	.00138		.90054	54,3	.09946
.0798	.90246	54,5	.00138		.90108	54,2	.09892
.0799	.90301	54,5	.00138		.90162	54,1	.09838
0.0800	8.90355	54,4	0.00139	0,3	8.90216	54,1	1.09784
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.0800	8.90355	54,4	0.00139	0,3	8.90216	54,1	1.09784
.0801	.90410	54,3	.00139		.90271	54,0	.09729
.0802	.90464	54,3	.00140		.90324	53,9	.09676
.0803	.90518	54,2	.00140		.90380	53,9	.09620
.0804	.90572	54,1	.00140		.90432	53,8	.09568
0.0805	8.90626	54,1	0.00141	0,3	8.90486	53,7	1.09514
.0806	.90681	54,0	.00141	0,3	.90540	53,6	.09460
.0807	.90734	53,9	.00141	0,3	.90593	53,6	.09407
.0808	.90788	53,9	.00142	0,4	.90647	53,5	.09353
.0809	.90842	53,8	.00142	0,4	.90700	53,4	.09300
0.0810	8.90896	53,7	0.00142	0,4	8.90754	53,4	1.09246
.0811	.90950	53,7	.00143		.90807	53,3	.09193
.0812	.91003	53,6	.00143		.90860	53,3	.09140
.0813	.91057	53,5	.00143		.90914	53,2	.09086
.0814	.91110	53,5	.00144		.90967	53,1	.09033
0.0815	8.91164	53,4	0.00144	0,4	8.91020	53,1	1.08980
.0816	.91217	53,3	.00144		.91073	53,0	.08927
.0817	.91271	53,3	.00145		.91126	52,9	.08874
.0818	.91324	53,2	.00145		.91179	52,9	.08821
.0819	.91377	53,1	.00145		.91231	52,8	.08769
0.0820	8.91430	53,1	0.00146	0,4	8.91284	52,7	1.08716
.0821	.91483	53,0	.00146		.91337	52,7	.08663
.0822	.91536	53,0	.00147		.91390	52,6	.08610
.0823	.91589	52,9	.00147		.91442	52,5	.08558
.0824	.91642	52,8	.00147		.91495	52,5	.08505
0.0825	8.91695	52,8	0.00148	0,4	8.91547	52,4	1.08453
.0826	.91747	52,7	.00148		.91599	52,3	.08401
.0827	.91800	52,6	.00148		.91652	52,3	.08348
.0828	.91853	52,6	.00149		.91704	52,2	.08296
.0829	.91905	52,5	.00149		.91756	52,1	.08244
0.0830	8.91958	52,4	0.00149	0,4	8.91808	52,1	1.08192
.0831	.92010	52,4	.00150		.91860	52,0	.08140
.0832	.92062	52,3	.00150		.91912	52,0	.08088
.0833	.92115	52,3	.00151		.91964	51,9	.08036
.0834	.92167	52,2	.00151		.92016	51,8	.07984
0.0835	8.92219	52,1	0.00151	0,4	8.92068	51,8	1.07932
.0836	.92271	52,1	.00152		.92120	51,7	.07880
.0837	.92323	52,0	.00152		.92171	51,6	.07829
.0838	.92375	51,9	.00152		.92223	51,6	.07777
.0839	.92427	51,9	.00153		.92274	51,5	.07726
0.0840	8.92479	51,8	0.00153	0,4	8.92326	51,5	1.07674
.0841	.92531	51,8	.00153		.92377	51,4	.07623
.0842	.92583	51,7	.00154		.92429	51,3	.07571
.0843	.92634	51,6	.00154		.92480	51,3	.07520
.0844	.92686	51,6	.00154		.92531	51,2	.07469
0.0845	8.92737	51,5	0.00155	0,4	8.92582	51,2	1.07418
.0846	.92789	51,5	.00155		.92634	51,1	.07366
.0847	.92840	51,4	.00156		.92685	51,0	.07315
.0848	.92892	51,3	.00156		.92736	51,0	.07264
.0849	.92943	51,3	.00156		.92787	50,9	.07213
0.0850	8.92994	51,2	0.00157	0,4	8.92837	50,8	1.07163
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.0850	8.92994	51,2	0.00157	0,4	8.92837	50,8	1.07163
.0851	.93045	51,2	.00157		.92888	50,8	.07112
.0852	.93096	51,1	.00157		.92939	50,7	.07061
.0853	.93148	51,0	.00158		.92990	50,7	.07010
.0854	.93199	51,0	.00158		.93040	50,6	.06960
0.0855	8.93250	50,9	0.00159	0,4	8.93091	50,5	1.06909
.0856	.93300	50,9	.00159		.93141	50,5	.06859
.0857	.93351	50,8	.00159		.93192	50,4	.06808
.0858	.93402	50,7	.00160		.93242	50,4	.06758
.0859	.93453	50,7	.00160		.93293	50,3	.06707
0.0860	8.93503	50,6	0.00160	0,4	8.93343	50,3	1.06657
.0861	.93554	50,6	.00161		.93393	50,2	.06607
.0862	.93604	50,5	.00161		.93443	50,1	.06557
.0863	.93655	50,4	.00162		.93493	50,1	.06507
.0864	.93705	50,4	.00162		.93543	50,0	.06457
0.0865	8.93756	50,3	0.00162	0,4	8.93593	50,0	1.06407
.0866	.93806	50,3	.00163		.93643	49,9	.06357
.0867	.93856	50,2	.00163		.93693	49,8	.06307
.0868	.93907	50,2	.00163		.93743	49,8	.06257
.0869	.93957	50,1	.00164		.93793	49,7	.06207
0.0870	8.94007	50,0	0.00164	0,4	8.93843	49,7	1.06157
.0871	.94057	50,0	.00165		.93892	49,6	.06108
.0872	.94107	49,9	.00165		.93942	49,6	.06058
.0873	.94157	49,9	.00165		.93991	49,5	.06009
.0874	.94206	49,8	.00166		.94041	49,4	.05959
0.0875	8.94256	49,8	0.00166	0,4	8.94090	49,4	1.05910
.0876	.94306	49,7	.00166		.94140	49,3	.05860
.0877	.94356	49,6	.00167		.94189	49,3	.05811
.0878	.94405	49,6	.00167		.94238	[illegible]	.05762
.0879	.94455	49,5	.00168		.94287	49,2	.05713
0.0880	8.94504	49,5	0.00168	0,4	8.94336	49,1	1.05664
.0881	.94554	49,4	.00168		.94385	49,0	.05615
.0882	.94603	49,4	.00169		.94434	49,0	.05566
.0883	.94652	49,3	.00169		.94483	48,9	.05517
.0884	.94702	49,3	.00169		.94532	48,9	.05468
0.0885	8.94751	49,2	0.00170	0,4	8.94581	48,8	1.05419
.0886	.94800	49,1	.00170		.94630	48,8	.05370
.0887	.94849	49,1	.00171		.94679	48,7	.05321
.0888	.94898	49,0	.00171		.94727	48,7	.05273
.0889	.94947	49,0	.00171		.94776	48,6	.05224
0.0890	8.94996	48,9	0.00172	0,4	8.94825	48,5	1.05175
.0891	.95045	48,9	.00172		.94873	48,5	.05127
.0892	.95094	48,8	.00173		.94922	48,4	.05078
.0893	.95143	48,8	.00173		.94970	48,4	.05030
.0894	.95192	48,7	.00173		.95018	48,3	.04982
0.0895	8.95240	48,7	0.00174	0,4	8.95067	48,3	1.04933
.0896	.95289	48,6	.00174		.95115	48,2	.04885
.0897	.95337	48,5	.00174		.95163	48,2	.04837
.0898	.95386	48,5	.00175		.95211	48,1	.04789
.0899	.95434	48,4	.00175		.95259	48,0	.04741
0.0900	8.95483	48,4	0.00176	0,4	8.95307	48,0	1.04693
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.0900	8.95483	48,4	0.00176	0,4	8.95307	48,0	1.04693
.0901	.95531	48,3	.00176		.95355	47,9	.04645
.0902	.95580	48,3	.00176		.95403	47,9	.04597
.0903	.95628	48,2	.00177		.95451	47,8	.04549
.0904	.95676	48,2	.00177		.95499	47,8	.04501
0.0905	8.95724	48,1	0.00178	0,4	8.95547	47,7	1.04453
.0906	.95772	48,1	.00178		.95594	47,7	.04406
.0907	.95820	48,0	.00178		.95642	47,6	.04358
.0908	.95868	48,0	.00179		.95689	47,6	.04311
.0909	.95916	47,9	.00179		.95737	47,5	.04263
0.0910	8.95964	47,9	0.00180	0,4	8.95784	47,5	1.04216
.0911	.96012	47,8	.00180		.95832	47,4	.04168
.0912	.96060	47,8	.00180		.95879	47,4	.04121
.0913	.96107	47,7	.00181		.95927	47,3	.04073
.0914	.96155	47,6	.00181		.95974	47,3	.04026
0.0915	8.96203	47,6	0.00182	0,4	8.96021	47,2	1.03979
.0916	.96250	47,5	.00182		.96068	47,1	.03932
.0917	.96298	47,5	.00182		.96115	47,1	.03885
.0918	.96345	47,4	.00183		.96163	47,0	.03837
.0919	.96393	47,4	.00183		.96210	47,0	.03790
0.0920	8.96440	47,3	0.00184	0,4	8.96256	46,9	1.03744
.0921	.96487	47,3	.00184		.96303	46,9	.03697
.0922	.96535	47,2	.00184		.96350	46,8	.03650
.0923	.96582	47,2	.00185		.96397	46,8	.03603
.0924	.96629	47,1	.00185		.96444	46,7	.03556
0.0925	8.96676	47,1	0.00186	0,4	8.96491	46,7	1.03509
.0926	.96723	47,0	.00186		.96537	46,6	.03463
.0927	.96770	47,0	.00186		.96584	46,6	.03416
.0928	.96817	46,9	.00187		.96630	46,5	.03370
.0929	.96864	46,9	.00187		.96677	46,5	.03323
0.0930	8.96911	46,8	0.00188	0,4	8.96723	46,4	1.03277
.0931	.96958	46,8	.00188		.96770	46,4	.03230
.0932	.97004	46,7	.00188		.96816	46,3	.03184
.0933	.97051	46,7	.00189		.96862	46,3	.03138
.0934	.97098	46,6	.00189		.96909	46,2	.03091
0.0935	8.97144	46,6	0.00190	0,4	8.96955	46,2	1.03045
.0936	.97191	46,5	.00190		.97001	46,1	.02999
.0937	.97237	46,5	.00190		.97047	46,1	.02953
.0938	.97284	46,4	.00191		.97093	46,0	.02907
.0939	.97330	46,4	.00191		.97139	46,0	.02861
0.0940	8.97377	46,3	0.00192	0,4	8.97185	45,9	1.02815
.0941	.97423	46,3	.00192		.97231	45,9	.02769
.0942	.97469	46,2	.00192		.97277	45,8	.02723
.0943	.97516	46,2	.00193		.97323	45,8	.02677
.0944	.97562	46,1	.00193		.97368	45,7	.02632
0.0945	8.97608	46,1	0.00194	0,4	8.97414	45,7	1.02586
.0946	.97654	46,0	.00194		.97460	45,6	.02540
.0947	.97700	46,0	.00194		.97505	45,6	.02495
.0948	.97746	45,9	.00195		.97551	45,5	.02449
.0949	.97792	45,9	.00195		.97597	45,5	.02403
0.0950	8.97838	45,9	0.00196	0,4	8.97642	45,4	1.02358
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.0950	8.97838	45,9	0.00196	0,4	8.97642	45,4	1.02358
.0951	.97883	45,8	.00196		.97687	45,4	.02313
.0952	.97929	45,8	.00197		.97733	45,3	.02267
.0953	.97975	45,7	.00197		.97778	45,3	.02222
.0954	.98021	45,7	.00197		.97823	45,2	.02177
0.0955	8.98066	45,6	0.00198	0,4	8.97869	45,2	1.02131
.0956	.98112	45,6	.00198		.97914	45,2	.02086
.0957	.98157	45,5	.00199		.97959	45,1	.02041
.0958	.98203	45,5	.00199		.98004	45,1	.01996
.0959	.98248	45,4	.00199		.98049	45,0	.01951
0.0960	8.98294	45,4	0.00200	0,4	8.98094	45,0	1.01906
.0961	.98339	45,3	.00200		.98139	44,9	.01861
.0962	.98384	45,3	.00201		.98184	44,9	.01816
.0963	.98430	45,2	.00201		.98229	44,8	.01771
.0964	.98475	45,2	.00201		.98273	44,8	.01727
0.0965	8.98520	45,1	0.00202	0,4	8.98318	44,7	1.01682
.0966	.98565	45,1	.00202		.98363	44,7	.01637
.0967	.98610	45,1	.00203		.98408	44,6	.01592
.0968	.98655	45,0	.00203		.98452	44,6	.01548
.0969	.98700	45,0	.00204		.98497	44,5	.01503
0.0970	8.98745	44,9	0.00204	0,4	8.98541	44,5	1.01459
.0971	.98790	44,9	.00204		.98586	44,5	.01414
.0972	.98835	44,8	.00205		.98630	44,4	.01370
.0973	.98880	44,8	.00205		.98675	44,4	.01325
.0974	.98925	44,7	.00206		.98719	44,3	.01281
0.0975	8.98969	44,7	0.00206	0,4	8.98763	44,3	1.01237
.0976	.99014	44,6	.00207		.98807	44,2	.01193
.0977	.99059	44,6	.00207		.98852	44,2	.01148
.0978	.99103	44,5	.00207		.98896	44,1	.01104
.0979	.99148	44,5	.00208		.98940	44,1	.01060
0.0980	8.99192	44,5	0.00208	0,4	8.98984	44,0	1.01016
.0981	.99237	44,4	.00209		.99028	44,0	.00972
.0982	.99281	44,4	.00209		.99072	43,9	.00928
.0983	.99325	44,3	.00209		.99116	43,9	.00884
.0984	.99370	44,3	.00210		.99160	43,9	.00840
0.0985	8.99414	44,2	0.00210	0,4	8.99203	43,8	1.00797
.0986	.99458	44,2	.00211		.99247	43,8	.00753
.0987	.99502	44,2	.00211		.99291	43,7	.00709
.0988	.99546	44,1	.00212		.99335	43,7	.00665
.0989	.99590	44,1	.00212		.99378	43,6	.00622
0.0990	8.99634	44,0	0.00212	0,4	8.99422	43,6	1.00578
.0991	.99678	44,0	.00213		.99466	43,5	.00534
.0992	.99722	43,9	.00213		.99509	43,5	.00491
.0993	.99766	43,9	.00214		.99553	43,4	.00447
.0994	.99810	43,8	.00214		.99596	43,4	.00404
0.0995	8.99854	43,8	0.00215	0,4	8.99639	43,4	1.00361
.0996	.99898	43,7	.00215		.99683	43,3	.00317
.0997	.99941	43,7	.00215		.99726	43,3	.00274
.0998	.99985	43,7	.00216		.99769	43,2	.00231
.0999	9.00029	43,6	.00216		.99812	43,2	.00188
0.1000	9.00072	43,6	0.00217	0,4	8.99856	43,1	1.00144
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

Logarithms of Hyperbolic Functions.

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.100	9.00072	435,7	0.00217	4,3	8.99856	431,4	1.00144
.101	.00506	431,5	.00221	4,4	9.00285	427,1	0.99715
.102	.00935	427,3	.00226	4,4	.00710	422,8	.99290
.103	.01360	423,1	.00230	4,5	.01131	418,7	.98869
.104	.01782	419,1	.00234	4,5	.01547	414,6	.98453
0.105	9.02199	415,1	0.00239	4,5	9.01960	410,6	0.98040
.106	.02612	411,2	.00244	4,6	.02368	406,7	.97632
.107	.03021	407,4	.00248	4,6	.02773	402,8	.97227
.108	.03427	403,7	.00253	4,7	.03174	399,0	.96826
.109	.03829	400,0	.00257	4,7	.03571	395,3	.96429
0.110	9.04227	396,4	0.00262	4,8	9.03965	391,6	0.96035
.111	.04621	392,9	.00267	4,8	.04354	388,1	.95646
.112	.05013	389,4	.00272	4,8	.04741	384,5	.95259
.113	.05400	386,0	.00277	4,9	.05124	381,1	.94876
.114	.05785	382,6	.00282	4,9	.05503	377,7	.94497
0.115	9.06165	379,3	0.00287	5,0	9.05879	374,3	0.94121
.116	.06543	376,1	.00292	5,0	.06252	371,1	.93748
.117	.06918	372,9	.00297	5,1	.06621	367,8	.93379
.118	.07289	369,8	.00302	5,1	.06987	364,7	.93013
.119	.07657	366,7	.00307	5,1	.07350	361,5	.92650
0.120	9.08022	363,6	0.00312	5,2	9.07710	358,5	0.92290
.121	.08384	360,7	.00317	5,2	.08067	355,4	.91933
.122	.08744	357,7	.00322	5,3	.08421	352,5	.91579
.123	.09100	354,9	.00328	5,3	.08772	349,5	.91228
.124	.09453	352,0	.00333	5,4	.09120	346,7	.90880
0.125	9.09804	349,2	0.00338	5,4	9.09466	343,8	0.90534
.126	.10152	346,5	.00344	5,4	.09808	341,1	.90192
.127	.10497	343,8	.00349	5,5	.10148	338,3	.89852
.128	.10840	341,1	.00355	5,5	.10485	335,6	.89515
.129	.11179	338,5	.00360	5,6	.10819	333,0	.89181
0.130	9.11517	336,0	0.00366	5,6	9.11151	330,3	0.88849
.131	.11851	333,4	.00372	5,7	.11480	327,8	.88520
.132	.12183	330,9	.00377	5,7	.11806	325,2	.88194
.133	.12513	328,5	.00383	5,7	.12130	322,7	.87870
.134	.12840	326,0	.00389	5,8	.12452	320,3	.87548
0.135	9.13165	323,7	0.00395	5,8	9.12771	317,8	0.87229
.136	.13488	321,3	.00400	5,9	.13087	315,4	.86913
.137	.13808	319,0	.00406	5,9	.13402	313,1	.86598
.138	.14126	316,7	.00412	6,0	.13713	310,7	.86287
.139	.14441	314,5	.00418	6,0	.14023	308,5	.85977
0.140	9.14755	312,2	0.00424	6,0	9.14330	306,2	0.85670
.141	.15066	310,0	.00430	6,1	.14635	304,0	.85365
.142	.15375	307,9	.00436	6,1	.14938	301,8	.85062
.143	.15682	305,8	.00443	6,2	.15239	299,6	.84761
.144	.15986	303,7	.00449	6,2	.15538	297,5	.84462
0.145	9.16289	301,6	0.00455	6,3	9.15834	295,4	0.84166
.146	.16589	299,6	.00461	6,3	.16128	293,3	.83872
.147	.16888	297,6	.00468	6,3	.16420	291,2	.83580
.148	.17185	295,6	.00474	6,4	.16711	289,2	.83289
.149	.17479	293,6	.00480	6,4	.16999	287,2	.83001
0.150	9.17772	291,7	0.00487	6,5	9.17285	285,2	0.82715
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

Logarithms of Hyperbolic Functions.

u	log sinh u	$\omega F_0'$	log cosh u	$\omega F_0'$	log tanh u	$\omega F_0'$	log coth u
0.150	9.17772	291,7	0.00487	6,5	9.17285	285,2	0.82715
.151	.18063	289,8	.00493	6,5	.17569	283,3	.82431
.152	.18351	287,9	.00500	6,6	.17852	281,4	.82148
.153	.18638	286,1	.00506	6,6	.18132	279,5	.81868
.154	.18924	284,2	.00513	6,6	.18411	277,6	.81589
0.155	9.19207	282,4	0.00520	6,7	9.18687	275,8	0.81313
.156	.19488	280,6	.00526	6,7	.18962	273,9	.81038
.157	.19768	278,9	.00533	6,8	.19235	272,1	.80765
.158	.20046	277,1	.00540	6,8	.19506	270,3	.80494
.159	.20323	275,4	.00547	6,8	.19776	268,6	.80224
0.160	9.20597	273,7	0.00554	6,9	9.20044	266,9	0.79956
.161	.20870	272,1	.00560	6,9	.20310	265,1	.79690
.162	.21141	270,4	.00567	7,0	.20574	263,4	.79426
.163	.21411	268,8	.00574	7,0	.20837	261,8	.79163
.164	.21679	267,2	.00581	7,1	.21097	260,1	.78903
0.165	9.21945	265,6	0.00589	7,1	9.21357	258,5	0.78643
.166	.22210	264,0	.00596	7,1	.21614	256,9	.78386
.167	.22473	262,5	.00603	7,2	.21871	255,3	.78129
.168	.22735	260,9	.00610	7,2	.22125	253,7	.77875
.169	.22995	259,4	.00617	7,3	.22378	252,2	.77622
0.170	9.23254	257,9	0.00625	7,3	9.22629	250,6	0.77371
.171	.23511	256,4	.00632	7,4	.22879	249,1	.77121
.172	.23767	255,0	.00639	7,4	.23128	247,6	.76872
.173	.24021	253,5	.00647	7,4	.23374	246,1	.76626
.174	.24274	252,1	.00654	7,5	.23620	244,6	.76380
0.175	9.24525	250,7	0.00662	7,5	9.23864	243,2	0.76136
.176	.24775	249,3	.00669	7,6	.24106	241,7	.75894
.177	.25024	247,9	.00677	7,6	.24347	240,3	.75653
.178	.25271	246,5	.00684	7,6	.24587	238,9	.75413
.179	.25517	245,2	.00692	7,7	.24825	237,5	.75175
0.180	9.25762	243,9	0.00700	7,7	9.25062	236,1	0.74938
.181	.26005	242,5	.00708	7,8	.25297	234,8	.74703
.182	.26247	241,3	.00715	7,8	.25531	233,4	.74469
.183	.26487	240,0	.00723	7,9	.25764	232,1	.74236
.184	.26727	238,7	.00731	7,9	.25996	230,8	.74004
0.185	9.26965	237,4	0.00739	7,9	9.26226	229,5	0.73774
.186	.27201	236,2	.00747	8,0	.26454	228,2	.73546
.187	.27437	234,9	.00755	8,0	.26682	226,9	.73318
.188	.27671	233,7	.00763	8,1	.26908	225,7	.73092
.189	.27904	232,5	.00771	8,1	.27133	224,4	.72867
0.190	9.28136	231,3	0.00779	8,2	9.27357	223,2	0.72643
.191	.28367	230,1	.00787	8,2	.27580	221,9	.72420
.192	.28597	229,0	.00796	8,2	.27801	220,7	.72199
.193	.28825	227,8	.00804	8,3	.28021	219,5	.71979
.194	.29052	226,7	.00812	8,3	.28240	218,3	.71760
0.195	9.29278	225,5	0.00821	8,4	9.28458	217,2	0.71542
.196	.29503	224,4	.00829	8,4	.28674	216,0	.71326
.197	.29727	223,3	.00837	8,4	.28890	214,9	.71110
.198	.29950	222,2	.00846	8,5	.29104	213,7	.70896
.199	.30172	221,1	.00854	8,5	.29317	212,6	.70683
0.200	9.30392	220,0	0.00863	8,6	9.29529	211,5	0.70471
u	log tan gd u	$\omega F_0'$	log sec gd u	$\omega F_0'$	log sin gd u	$\omega F_0'$	log csc gd u

Logarithms of Hyperbolic Functions.

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.200	9.30392	220,0	0.00863	8,6	9.29529	211,5	0.70471
.201	.30612	219,0	.00871	8,6	.29740	210,4	.70260
.202	.30830	217,9	.00880	8,7	.29950	209,3	.70050
.203	.31047	216,9	.00889	8,7	.30159	208,2	.69841
.204	.31264	215,8	.00897	8,7	.30366	207,1	.69634
0.205	9.31479	214,8	0.00906	8,8	9.30573	206,0	0.69427
.206	.31693	213,8	.00915	8,8	.30778	205,0	.69222
.207	.31907	212,8	.00924	8,9	.30983	203,9	.69017
.208	.32119	211,8	.00933	8,9	.31186	202,9	.68814
.209	.32330	210,8	.00942	8,9	.31389	201,9	.68611
0.210	9.32541	209,8	0.00951	9,0	9.31590	200,8	0.68410
.211	.32750	208,9	.00960	9,0	.31790	199,8	.68210
.212	.32958	207,9	.00969	9,1	.31990	198,8	.68010
.213	.33166	207,0	.00978	9,1	.32188	197,9	.67812
.214	.33372	206,0	.00987	9,2	.32385	196,9	.67615
0.215	9.33578	205,1	0.00996	9,2	9.32582	195,9	0.67418
.216	.33783	204,2	.01005	9,2	.32777	194,9	.67223
.217	.33986	203,3	.01015	9,3	.32972	194,0	.67028
.218	.34189	202,4	.01024	9,3	.33165	193,0	.66835
.219	.34391	201,5	.01033	9,4	.33358	192,1	.66642
0.220	9.34592	200,6	0.01043	9,4	9.33549	191,2	0.66451
.221	.34792	199,7	.01052	9,4	.33740	190,3	.66260
.222	.34991	198,8	.01062	9,5	.33930	189,3	.66070
.223	.35190	198,0	.01071	9,5	.34119	188,4	.65881
.224	.35387	197,1	.01081	9,6	.34307	187,5	.65693
0.225	9.35584	196,3	0.01090	9,6	9.34494	186,7	0.65506
.226	.35780	195,4	.01100	9,7	.34680	185,8	.65320
.227	.35975	194,6	.01109	9,7	.34865	184,9	.65135
.228	.36169	193,8	.01119	9,7	.35050	184,0	.64950
.229	.36362	193,0	.01129	9,8	.35234	183,2	.64766
0.230	9.36555	192,1	0.01139	9,8	9.35416	182,3	0.64584
.231	.36747	191,3	.01149	9,9	.35598	181,5	.64402
.232	.36938	190,5	.01158	9,9	.35779	180,6	.64221
.233	.37128	189,8	.01168	9,9	.35959	179,8	.64041
.234	.37317	189,0	.01178	10,0	.36139	179,0	.63861
0.235	9.37506	188,2	0.01188	10,0	9.36317	178,2	0.63683
.236	.37694	187,4	.01198	10,1	.36495	177,4	.63505
.237	.37881	186,7	.01208	10,1	.36672	176,6	.63328
.238	.38067	185,9	.01219	10,1	.36848	175,8	.63152
.239	.38252	185,2	.01229	10,2	.37024	175,0	.62976
0.240	9.38437	184,4	0.01239	10,2	9.37198	174,2	0.62802
.241	.38621	183,7	.01249	10,3	.37372	173,4	.62628
.242	.38805	183,0	.01259	10,3	.37545	172,6	.62455
.243	.38987	182,2	.01270	10,4	.37717	171,9	.62283
.244	.39169	181,5	.01280	10,4	.37889	171,1	.62111
0.245	9.39350	180,8	0.01291	10,4	9.38060	170,4	0.61940
.246	.39531	180,1	.01301	10,5	.38230	169,6	.61770
.247	.39710	179,4	.01312	10,5	.38399	168,9	.61601
.248	.39889	178,7	.01322	10,6	.38567	168,1	.61433
.249	.40068	178,0	.01333	10,6	.38735	167,4	.61265
0.250	9.40245	177,3	0.01343	10,6	9.38902	166,7	0.61098
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.250	9.40245	177,3	0.01343	10,6	9.38902	166,7	0.61098
.251	.40422	176,6	.01354	10,7	.39069	166,0	.60931
.252	.40599	176,0	.01365	10,7	.39234	165,3	.60766
.253	.40774	175,3	.01375	10,8	.39399	164,5	.60601
.254	.40949	174,6	.01386	10,8	.39563	163,8	.60437
0.255	9.41124	174,0	0.01397	10,8	9.39727	163,1	0.60273
.256	.41297	173,3	.01408	10,9	.39890	162,5	.60110
.257	.41470	172,7	.01419	10,9	.40052	161,8	.59948
.258	.41643	172,0	.01430	11,0	.40213	161,1	.59787
.259	.41814	171,4	.01441	11,0	.40374	160,4	.59626
0.260	9.41986	170,8	0.01452	11,0	9.40534	159,7	0.59466
.261	.42156	170,2	.01463	11,1	.40693	159,1	.59307
.262	.42326	169,5	.01474	11,1	.40852	158,4	.59148
.263	.42495	168,9	.01485	11,2	.41010	157,8	.58990
.264	.42664	168,3	.01496	11,2	.41168	157,1	.58832
0.265	9.42832	167,7	0.01507	11,2	9.41324	156,5	0.58676
.266	.42999	167,1	.01519	11,3	.41480	155,8	.58520
.267	.43166	166,5	.01530	11,3	.41636	155,2	.58364
.268	.43332	165,9	.01541	11,4	.41791	154,5	.58209
.269	.43498	165,3	.01553	11,4	.41945	153,9	.58055
0.270	9.43663	164,7	0.01564	11,4	9.42099	153,3	0.57901
.271	.43827	164,2	.01576	11,5	.42252	152,7	.57748
.272	.43991	163,6	.01587	11,5	.42404	152,1	.57596
.273	.44154	163,0	.01599	11,6	.42556	151,4	.57444
.274	.44317	162,4	.01610	11,6	.42707	150,8	.57293
0.275	9.44479	161,9	0.01622	11,7	9.42857	150,2	0.57143
.276	.44641	161,3	.01634	11,7	.43007	149,6	.56993
.277	.44802	160,8	.01645	11,7	.43157	149,0	.56843
.278	.44962	160,2	.01657	11,8	.43305	148,5	.56695
.279	.45122	159,7	.01669	11,8	.43454	147,9	.56546
0.280	9.45282	159,1	0.01681	11,9	9.43601	147,3	0.56399
.281	.45441	158,6	.01693	11,9	.43748	146,7	.56252
.282	.45599	158,1	.01704	11,9	.43895	146,1	.56105
.283	.45757	157,5	.01716	12,0	.44040	145,6	.55960
.284	.45914	157,0	.01728	12,0	.44186	145,0	.55814
0.285	9.46071	156,5	0.01740	12,1	9.44330	144,4	0.55670
.286	.46227	156,0	.01752	12,1	.44475	143,9	.55525
.287	.46383	155,5	.01765	12,1	.44618	143,3	.55382
.288	.46538	154,9	.01777	12,2	.44761	142,8	.55239
.289	.46693	154,4	.01789	12,2	.44904	142,2	.55096
0.290	9.46847	153,9	0.01801	12,3	9.45046	141,7	0.54954
.291	.47001	153,4	.01813	12,3	.45187	141,1	.54813
.292	.47154	152,9	.01826	12,3	.45328	140,6	.54672
.293	.47306	152,4	.01838	12,4	.45468	140,1	.54532
.294	.47459	152,0	.01851	12,4	.45608	139,5	.54392
0.295	9.47610	151,5	0.01863	12,5	9.45747	139,0	0.54253
.296	.47762	151,0	.01875	12,5	.45886	138,5	.54114
.297	.47912	150,5	.01888	12,5	.46024	138,0	.53976
.298	.48063	150,0	.01900	12,6	.46162	137,5	.53838
.299	.48212	149,6	.01913	12,6	.46299	136,9	.53701
0.300	9.48362	149,1	0.01926	12,7	9.46436	136,4	0.53564
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.300	9.48362	149,1	0.01926	12,7	9.46436	136,4	0.53564
.301	.48510	148,6	.01938	12,7	.46572	135,9	.53428
.302	.48659	148,2	.01951	12,7	.46708	135,4	.53292
.303	.48807	147,7	.01964	12,8	.46843	134,9	.53157
.304	.48954	147,2	.01977	12,8	.46978	134,4	.53022
0.305	9.49101	146,8	0.01989	12,8	9.47112	133,9	0.52888
.306	.49248	146,3	.02002	12,9	.47245	133,4	.52755
.307	.49394	145,9	.02015	12,9	.47379	133,0	.52621
.308	.49540	145,4	.02028	13,0	.47511	132,5	.52489
.309	.49685	145,0	.02041	13,0	.47644	132,0	.52356
0.310	9.49830	144,6	0.02054	13,0	9.47775	131,5	0.52225
.311	.49974	144,1	.02067	13,1	.47907	131,0	.52093
.312	.50118	143,7	.02080	13,1	.48037	130,6	.51963
.313	.50261	143,3	.02094	13,2	.48168	130,1	.51832
.314	.50404	142,8	.02107	13,2	.48298	129,6	.51702
0.315	9.50547	142,4	0.02120	13,2	9.48427	129,2	0.51573
.316	.50689	142,0	.02133	13,3	.48556	128,7	.51444
.317	.50831	141,6	.02146	13,3	.48684	128,2	.51316
.318	.50972	141,1	.02160	13,4	.48812	127,8	.51188
.319	.51113	140,7	.02173	13,4	.48940	127,3	.51060
0.320	9.51254	140,3	0.02187	13,4	9.49067	126,9	0.50933
.321	.51394	139,9	.02200	13,5	.49194	126,4	.50806
.322	.51534	139,5	.02214	13,5	.49320	126,0	.50680
.323	.51673	139,1	.02227	13,6	.49446	125,5	.50554
.324	.51812	138,7	.02241	13,6	.49571	125,1	.50429
0.325	9.51950	138,3	0.02254	13,6	9.49696	124,7	0.50304
.326	.52088	137,9	.02268	13,7	.49820	124,2	.50180
.327	.52226	137,5	.02282	13,7	.49944	123,8	.50056
.328	.52363	137,1	.02295	13,8	.50068	123,4	.49932
.329	.52500	136,7	.02309	13,8	.50191	122,9	.49809
0.330	9.52637	136,3	0.02323	13,8	9.50314	122,5	0.49686
.331	.52773	136,0	.02337	13,9	.50436	122,1	.49564
.332	.52909	135,6	.02351	13,9	.50558	121,7	.49442
.333	.53044	135,2	.02365	14,0	.50679	121,3	.49321
.334	.53179	134,8	.02379	14,0	.50800	120,8	.49200
0.335	9.53314	134,5	0.02393	14,0	9.50921	120,4	0.49079
.336	.53448	134,1	.02407	14,1	.51041	120,0	.48959
.337	.53582	133,7	.02421	14,1	.51161	119,6	.48839
.338	.53715	133,3	.02435	14,1	.51281	119,2	.48719
.339	.53849	133,0	.02449	14,2	.51400	118,8	.48600
0.340	9.53981	132,6	0.02463	14,2	9.51518	118,4	0.48482
.341	.54114	132,3	.02478	14,3	.51636	118,0	.48364
.342	.54246	131,9	.02492	14,3	.51754	117,6	.48246
.343	.54378	131,5	.02506	14,3	.51872	117,2	.48128
.344	.54509	131,2	.02520	14,4	.51989	116,8	.48011
0.345	9.54640	130,8	0.02535	14,4	9.52105	116,4	0.47895
.346	.54771	130,5	.02549	14,5	.52221	116,0	.47779
.347	.54901	130,1	.02564	14,5	.52337	115,7	.47663
.348	.55031	129,8	.02578	14,5	.52453	115,3	.47547
.349	.55161	129,5	.02593	14,6	.52568	114,9	.47432
0.350	9.55290	129,1	0.02607	14,6	9.52682	114,5	0.47318
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.350	9.55290	129,1	0.02607	14,6	9.52682	114,5	0.47318
.351	.55419	128,8	.02622	14,6	.52797	114,1	.47203
.352	.55547	128,4	.02637	14,7	.52911	113,7	.47089
.353	.55676	128,1	.02651	14,7	.53024	113,4	.46976
.354	.55804	127,8	.02666	14,8	.53137	113,0	.46863
0.355	9.55931	127,4	0.02681	14,8	9.53250	112,6	0.46750
.356	.56059	127,1	.02696	14,8	.53363	112,3	.46637
.357	.56185	126,8	.02711	14,9	.53475	111,9	.46525
.358	.56312	126,5	.02726	14,9	.53586	111,5	.46414
.359	.56438	126,1	.02740	15,0	.53698	111,2	.46302
0.360	9.56564	125,8	0.02755	15,0	9.53809	110,8	0.46191
.361	.56690	125,5	.02770	15,0	.53919	110,5	.46081
.362	.56815	125,2	.02786	15,1	.54030	110,1	.45970
.363	.56940	124,8	.02801	15,1	.54140	109,7	.45860
.364	.57065	124,5	.02816	15,1	.54249	109,4	.45751
0.365	9.57189	124,2	0.02831	15,2	9.54358	109,0	0.45642
.366	.57313	123,9	.02846	15,2	.54467	108,7	.45533
.367	.57437	123,6	.02861	15,3	.54576	108,3	.45424
.368	.57561	123,3	.02877	15,3	.54684	108,0	.45316
.369	.57684	123,0	.02892	15,3	.54792	107,7	.45208
0.370	9.57807	122,7	0.02907	15,4	9.54899	107,3	0.45101
.371	.57929	122,4	.02923	15,4	.55006	107,0	.44994
.372	.58051	122,1	.02938	15,4	.55113	106,6	.44887
.373	.58173	121,8	.02954	15,5	.55220	106,3	.44780
.374	.58295	121,5	.02969	15,5	.55326	106,0	.44674
0.375	9.58416	121,2	0.02985	15,6	9.55432	105,6	0.44568
.376	.58537	120,9	.03000	15,6	.55537	105,3	.44463
.377	.58658	120,6	.03016	15,6	.55642	105,0	.44358
.378	.58779	120,3	.03031	15,7	.55747	104,6	.44253
.379	.58899	120,0	.03047	15,7	.55852	104,3	.44148
0.380	9.59019	119,7	0.03063	15,8	9.55956	104,0	0.44044
.381	.59138	119,5	.03079	15,8	.56059	103,7	.43941
.382	.59257	119,2	.03095	15,8	.56163	103,3	.43837
.383	.59377	118,9	.03110	15,9	.56266	103,0	.43734
.384	.59495	118,6	.03126	15,9	.56369	102,7	.43631
0.385	9.59614	118,3	0.03142	15,9	9.56472	102,4	0.43528
.386	.59732	118,0	.03158	16,0	.56574	102,1	.43426
.387	.59850	117,8	.03174	16,0	.56676	101,8	.43324
.388	.59967	117,5	.03190	16,1	.56777	101,4	.43223
.389	.60085	117,2	.03206	16,1	.56879	101,1	.43121
0.390	9.60202	116,9	0.03222	16,1	9.56980	100,8	0.43020
.391	.60319	116,7	.03238	16,2	.57080	100,5	.42920
.392	.60435	116,4	.03255	16,2	.57181	100,2	.42819
.393	.60551	116,1	.03271	16,2	.57281	99,9	.42719
.394	.60668	115,9	.03287	16,3	.57380	99,6	.42620
0.395	9.60783	115,6	0.03303	16,3	9.57480	99,3	0.42520
.396	.60899	115,3	.03320	16,4	.57579	99,0	.42421
.397	.61014	115,1	.03336	16,4	.57678	98,7	.42322
.398	.61129	114,8	.03353	16,4	.57776	98,4	.42224
.399	.61244	114,6	.03369	16,5	.57875	98,1	.42125
0.400	9.61358	114,3	0.03385	16,5	9.57973	97,8	0.42027
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.400	9.61358	114,3	0.03385	16,5	9.57973	97,8	0.42027
.401	.61472	114,0	.03402	16,5	.58070	97,5	.41930
.402	.61586	113,8	.03419	16,6	.58168	97,2	.41832
.403	.61700	113,5	.03435	16,6	.58265	96,9	.41735
.404	.61813	113,3	.03452	16,6	.58361	96,6	.41639
0.405	9.61926	113,0	0.03468	16,7	9.58458	96,3	0.41542
.406	.62039	112,8	.03485	16,7	.58554	96,1	.41446
.407	.62152	112,5	.03502	16,8	.58650	95,8	.41350
.408	.62264	112,3	.03519	16,8	.58746	95,5	.41254
.409	.62376	112,0	.03535	16,8	.58841	95,2	.41159
0.410	9.62488	111,8	0.03552	16,9	9.58936	94,9	0.41064
.411	.62600	111,6	.03569	16,9	.59031	94,6	.40969
.412	.62711	111,3	.03586	16,9	.59125	94,4	.40875
.413	.62823	111,1	.03603	17,0	.59220	94,1	.40780
.414	.62934	110,8	.03620	17,0	.59314	93,8	.40686
0.415	9.63044	110,6	0.03637	17,1	9.59407	93,5	0.40593
.416	.63155	110,4	.03654	17,1	.59501	93,3	.40499
.417	.63265	110,1	.03671	17,1	.59594	93,0	.40406
.418	.63375	109,9	.03688	17,2	.59687	92,7	.40313
.419	.63485	109,6	.03706	17,2	.59779	92,4	.40221
0.420	9.63594	109,4	0.03723	17,2	9.59871	92,2	0.40129
.421	.63704	109,2	.03740	17,3	.59963	91,9	.40037
.422	.63813	109,0	.03757	17,3	.60055	91,6	.39945
.423	.63922	108,7	.03775	17,3	.60147	91,4	.39853
.424	.64030	108,5	.03792	17,4	.60238	91,1	.39762
0.425	9.64139	108,3	0.03810	17,4	9.60329	90,8	0.39671
.426	.64247	108,0	.03827	17,5	.60420	90,6	.39580
.427	.64355	107,8	.03844	17,5	.60510	90,3	.39490
.428	.64462	107,6	.03862	17,5	.60600	90,1	.39400
.429	.64570	107,4	.03880	17,6	.60690	89,8	.39310
0.430	9.64677	107,1	0.03897	17,6	9.60780	89,6	0.39220
.431	.64784	106,9	.03915	17,6	.60869	89,3	.39131
.432	.64891	106,7	.03932	17,7	.60959	89,0	.39041
.433	.64997	106,5	.03950	17,7	.61047	88,8	.38953
.434	.65104	106,3	.03968	17,7	.61136	88,5	.38864
0.435	9.65210	106,0	0.03986	17,8	9.61224	88,3	0.38776
.436	.65316	105,8	.04003	17,8	.61313	88,0	.38687
.437	.65422	105,6	.04021	17,9	.61401	87,8	.38599
.438	.65527	105,4	.04039	17,9	.61488	87,5	.38512
.439	.65633	105,2	.04057	17,9	.61576	87,3	.38424
0.440	9.65738	105,0	0.04075	18,0	9.61663	87,0	0.38337
.441	.65843	104,8	.04093	18,0	.61750	86,8	.38250
.442	.65947	104,6	.04111	18,0	.61836	86,5	.38164
.443	.66052	104,4	.04129	18,1	.61923	86,3	.38077
.444	.66156	104,2	.04147	18,1	.62009	86,1	.37991
0.445	9.66260	104,0	0.04165	18,1	9.62095	85,8	0.37905
.446	.66364	103,7	.04183	18,2	.62180	85,6	.37820
.447	.66468	103,5	.04202	18,2	.62266	85,3	.37734
.448	.66571	103,3	.04220	18,3	.62351	85,1	.37649
.449	.66674	103,1	.04238	18,3	.62436	84,9	.37564
0.450	9.66777	102,9	0.04256	18,3	9.62521	84,6	0.37479
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.450	9.66777	102,9	0.04256	18,3	9.62521	84,6	0.37479
.451	.66880	102,7	.04275	18,4	.62605	84,4	.37395
.452	.66983	102,5	.04293	18,4	.62690	84,1	.37310
.453	.67085	102,3	.04312	18,4	.62774	83,9	.37226
.454	.67187	102,1	.04330	18,5	.62857	83,7	.37143
0.455	9.67289	101,9	0.04348	18,5	9.62941	83,4	0.37059
.456	.67391	101,8	.04367	18,5	.63024	83,2	.36976
.457	.67493	101,6	.04385	18,6	.63107	83,0	.36893
.458	.67594	101,4	.04404	18,6	.63190	82,8	.36810
.459	.67696	101,2	.04423	18,6	.63273	82,5	.36727
0.460	9.67797	101,0	0.04441	18,7	9.63355	82,3	0.36645
.461	.67898	100,8	.04460	18,7	.63438	82,1	.36562
.462	.67998	100,6	.04479	18,7	.63519	81,8	.36481
.463	.68099	100,4	.04498	18,8	.63601	81,6	.36399
.464	.68199	100,2	.04516	18,8	.63683	81,4	.36317
0.465	9.68299	100,0	0.04535	18,9	9.63764	81,2	0.36236
.466	.68399	99,8	.04554	18,9	.63845	81,0	.36155
.467	.68499	99,7	.04573	18,9	.63926	80,7	.36074
.468	.68599	99,5	.04592	19,0	.64007	80,5	.35993
.469	.68698	99,3	.04611	19,0	.64087	80,3	.35913
0.470	9.68797	99,1	0.04630	19,0	9.64167	80,1	0.35833
.471	.68896	98,9	.04649	19,1	.64247	79,9	.35753
.472	.68995	98,7	.04668	19,1	.64327	79,6	.35673
.473	.69094	98,6	.04687	19,1	.64406	79,4	.35594
.474	.69192	98,4	.04706	19,2	.64486	79,2	.35514
0.475	9.69290	98,2	0.04726	19,2	9.64565	79,0	0.35435
.476	.69388	98,0	.04745	19,2	.64644	78,8	.35356
.477	.69486	97,8	.04764	19,3	.64722	78,6	.35278
.478	.69584	97,7	.04783	19,3	.64801	78,4	.35199
.479	.69682	97,5	.04803	19,3	.64879	78,2	.35121
0.480	9.69779	97,3	0.04822	19,4	9.64957	77,9	0.35043
.481	.69876	97,1	.04841	19,4	.65035	77,7	.34965
.482	.69973	97,0	.04861	19,4	.65113	77,5	.34887
.483	.70070	96,8	.04880	19,5	.65190	77,3	.34810
.484	.70167	96,6	.04900	19,5	.65267	77,1	.34733
0.485	9.70264	65,5	0.04919	19,6	9.65344	76,9	0.34656
.486	.70360	96,3	.04939	19,6	.65421	76,7	.34579
.487	.70456	96,1	.04959	19,6	.65498	76,5	.34502
.488	.70552	95,9	.04978	19,7	.65574	76,3	.34426
.489	.70648	95,8	.04998	19,7	.65650	76,1	.34350
0.490	9.70744	95,6	0.05018	19,7	9.65726	75,9	0.34274
.491	.70839	95,4	.05037	19,8	.65802	75,7	.34198
.492	.70935	95,3	.05057	19,8	.65878	75,5	.34122
.493	.71030	95,1	.05077	19,8	.65953	75,3	.34047
.494	.71125	95,0	.05097	19,9	.66028	75,1	.33972
0.495	9.71220	94,8	0.05117	19,9	9.66103	74,9	0.33897
.496	.71315	94,6	.05137	19,9	.66178	74,7	.33822
.497	.71409	94,5	.05156	20,0	.66253	74,5	.33747
.498	.71503	94,3	.05176	20,0	.66327	74,3	.33673
.499	.71598	94,1	.05196	20,0	.66401	74,1	.33599
0.500	9.71692	94,0	0.05217	20,1	9.66475	73,9	0.33525
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.500	9.71692	94,0	0.05217	20,1	9.66475	73,9	0.33525
.501	.71786	93,8	.05237	20,1	.66549	73,7	.33451
.502	.71879	93,7	.05257	20,1	.66623	73,5	.33377
.503	.71973	93,5	.05277	20,2	.66696	73,3	.33304
.504	.72066	93,3	.05297	20,2	.66769	73,1	.33231
0.505	9.72160	93,2	0.05317	20,2	9.66842	72,9	0.33158
.506	.72253	93,0	.05338	20,3	.66915	72,8	.33085
.507	.72346	92,9	.05358	20,3	.66988	72,6	.33012
.508	.72438	92,7	.05378	20,3	.67060	72,4	.32940
.509	.72531	92,6	.05399	20,4	.67133	72,2	.32867
0.510	9.72624	92,4	0.05419	20,4	9.67205	72,0	0.32795
.511	.72716	92,3	.05439	20,4	.67277	71,8	.32723
.512	.72808	92,1	.05460	20,5	.67348	71,6	.32652
.513	.72900	92,0	.05480	20,5	.67420	71,5	.32580
.514	.72992	91,8	.05501	20,5	.67491	71,3	.32509
0.515	9.73084	91,7	0.05521	20,6	9.67562	71,1	0.32438
.516	.73175	91,5	.05542	20,6	.67633	70,9	.32367
.517	.73267	91,4	.05563	20,6	.67704	70,7	.32296
.518	.73358	91,2	.05583	20,7	.67775	70,5	.32225
.519	.73449	91,1	.05604	20,7	.67845	70,3	.32155
0.520	9.73540	90,9	0.05625	20,7	9.67916	70,2	0.32084
.521	.73631	90,8	.05645	20,8	.67986	70,0	.32014
.522	.73722	90,6	.05666	20,8	.68056	69,8	.31944
.523	.73812	90,5	.05687	20,8	.68125	69,6	.31875
.524	.73903	90,3	.05708	20,9	.68195	69,5	.31805
0.525	9.73993	90,2	0.05729	20,9	9.68264	69,3	0.31736
.526	.74083	90,0	.05750	20,9	.68333	69,1	.31667
.527	.74173	89,9	.05771	21,0	.68402	68,9	.31598
.528	.74263	89,8	.05792	21,0	.68471	68,7	.31529
.529	.74353	89,6	.05813	21,0	.68540	68,6	.31460
0.530	9.74442	89,5	0.05834	21,1	9.68608	68,4	0.31392
.531	.74532	89,3	.05855	21,1	.68677	68,2	.31323
.532	.74621	89,2	.05876	21,1	.68745	68,0	.31255
.533	.74710	89,1	.05897	21,2	.68813	67,9	.31187
.534	.74799	88,9	.05918	21,2	.68880	67,7	.31120
0.535	9.74888	88,8	0.05940	21,2	9.68948	67,5	0.31052
.536	.74976	88,6	.05961	21,3	.69016	67,4	.30984
.537	.75065	88,5	.05982	21,3	.69083	67,2	.30917
.538	.75153	88,4	.06004	21,3	.69150	67,0	.30850
.539	.75242	88,2	.06025	21,4	.69217	66,9	.30783
0.540	9.75330	88,1	0.06046	21,4	9.69284	66,7	0.30716
.541	.75418	88,0	.06068	21,4	.69350	66,5	.30650
.542	.75506	87,8	.06089	21,5	.69417	66,3	.30583
.543	.75594	87,7	.06111	21,5	.69483	66,2	.30517
.544	.75681	87,6	.06132	21,5	.69549	66,0	.30451
0.545	9.75769	87,4	0.06154	21,6	9.69615	65,9	0.30385
.546	.75856	87,3	.06175	21,6	.69681	65,7	.30319
.547	.75943	87,2	.06197	21,6	.69746	65,5	.30254
.548	.76030	87,0	.06219	21,7	.69812	65,4	.30188
.549	.76117	86,9	.06240	21,7	.69877	65,2	.30123
0.550	9.76204	86,8	0.06262	21,7	9.69942	65,0	0.30058
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.550	9.76204	86,8	0.06262	21,7	9.69942	65,0	0.30058
.551	.76291	86,6	.06284	21,8	.70007	64,9	.29993
.552	.76377	86,5	.06306	21,8	.70072	64,7	.29928
.553	.76464	86,4	.06327	21,8	.70137	64,5	.29863
.554	.76550	86,3	.06349	21,9	.70201	64,4	.29799
0.555	9.76636	86,1	0.06371	21,9	9.70265	64,2	0.29735
.556	.76722	86,0	.06393	21,9	.70329	64,1	.29671
.557	.76808	85,9	.06415	22,0	.70393	63,9	.29607
.558	.76894	85,7	.06437	22,0	.70457	63,7	.29543
.559	.76980	85,6	.06459	22,0	.70521	63,6	.29479
0.560	9.77065	85,5	0.06481	22,1	9.70584	63,4	0.29416
.561	.77151	85,4	.06503	22,1	.70648	63,3	.29352
.562	.77236	85,2	.06525	22,1	.70711	63,1	.29289
.563	.77321	85,1	.06547	22,2	.70774	63,0	.29226
.564	.77406	85,0	.06570	22,2	.70837	62,8	.29163
0.565	9.77491	84,9	0.06592	22,2	9.70900	62,7	.29100
.566	.77576	84,8	.06614	22,3	.70962	62,5	.29038
.567	.77661	84,6	.06636	22,3	.71025	62,3	.28975
.568	.77745	84,5	.06659	22,3	.71087	62,2	.28913
.569	.77830	84,4	.06681	22,3	.71149	62,0	.28851
0.570	9.77914	84,3	0.06703	22,4	9.71211	61,9	0.28789
.571	.77998	84,2	.06726	22,4	.71273	61,7	.28727
.572	.78083	84,0	.06748	22,4	.71334	61,6	.28666
.573	.78167	83,9	.06771	22,5	.71396	61,4	.28604
.574	.78250	83,8	.06793	22,5	.71457	61,3	.28543
0.575	9.78334	83,7	0.06816	22,5	9.71519	61,1	0.28481
.576	.78418	83,6	.06838	22,6	.71580	61,0	.28420
.577	.78501	83,4	.06861	22,6	.71641	60,8	.28359
.578	.78585	83,3	.06883	22,6	.71701	60,7	.28299
.579	.78668	83,2	.06906	22,7	.71762	60,5	.28238
0.580	9.78751	83,1	0.06929	22,7	9.71822	60,4	0.28178
.581	.78834	83,0	.06951	22,7	.71883	60,2	.28117
.582	.78917	82,9	.06974	22,8	.71943	60,1	.28057
.583	.79000	82,7	.06997	22,8	.72003	60,0	.27997
.584	.79082	82,6	.07020	22,8	.72063	59,8	.27937
0.585	9.79165	82,5	0.07043	22,9	9.72123	59,7	0.27877
.586	.79247	82,4	.07065	22,9	.72182	59,5	.27818
.587	.79330	82,3	.07088	22,9	.72242	59,4	.27758
.588	.79412	82,2	.07111	23,0	.72301	59,2	.27699
.589	.79494	82,1	.07134	23,0	.72360	59,1	.27640
0.590	9.79576	82,0	0.07157	23,0	9.72419	58,9	0.27581
.591	.79658	81,8	.07180	23,0	.72478	58,8	.27522
.592	.79740	81,7	.07203	23,1	.72537	58,7	.27463
.593	.79822	81,6	.07226	23,1	.72595	58,5	.27405
.594	.79903	81,5	.07249	23,1	.72654	58,4	.27346
0.595	9.79985	81,4	0.07273	23,2	9.72712	58,2	0.27288
.596	.80066	81,3	.07296	23,2	.72770	58,1	.27230
.597	.80147	81,2	.07319	23,2	.72828	58,0	.27172
.598	.80228	81,1	.07342	23,3	.72886	57,8	.27114
.599	.80309	81,0	.07366	23,3	.72944	57,7	.27056
0.600	9.80390	80,9	0.07389	23,3	9.73001	57,5	0.26999
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.600	9.80390	80,9	0.07389	23,3	9.73001	57,5	0.26999
.601	.80471	80,8	.07412	23,4	.73059	57,4	.26941
.602	.80552	80,7	.07436	23,4	.73116	57,3	.26884
.603	.80632	80,5	.07459	23,4	.73173	57,1	.26827
.604	.80713	80,4	.07482	23,4	.73231	57,0	.26769
0.605	9.80793	80,3	0.07506	23,5	9.73287	56,9	0.26713
.606	.80874	80,2	.07529	23,5	.73344	56,7	.26656
.607	.80954	80,1	.07553	23,5	.73401	56,6	.26599
.608	.81034	80,0	.07576	23,6	.73457	56,5	.26543
.609	.81114	79,9	.07600	23,6	.73514	56,3	.26486
0.610	9.81194	79,8	0.07624	23,6	9.73570	56,2	0.26430
.611	.81273	79,7	.07647	23,7	.73626	56,0	.26374
.612	.81353	79,6	.07671	23,7	.73682	55,9	.26318
.613	.81433	79,5	.07695	23,7	.73738	55,8	.26262
.614	.81512	79,4	.07718	23,8	.73794	55,7	.26206
0.615	9.81591	79,3	0.07742	23,8	9.73849	55,5	0.26151
.616	.81671	79,2	.07766	23,8	.73905	55,4	.26095
.617	.81750	79,1	.07790	23,8	.73960	55,3	.26040
.618	.81829	79,0	.07814	23,9	.74015	55,1	.25985
.619	.81908	78,9	.07838	23,9	.74070	55,0	.25930
0.620	9.81987	78,8	0.07861	23,9	9.74125	54,9	0.25875
.621	.82065	78,7	.07885	24,0	.74180	54,7	.25820
.622	.82144	78,6	.07909	24,0	.74235	54,6	.25765
.623	.82223	78,5	.07933	24,0	.74289	54,5	.25711
.624	.82301	78,4	.07957	24,1	.74344	54,3	.25656
0.625	9.82380	78,3	0.07982	24,1	9.74398	54,2	0.25602
.626	.82458	78,2	.08006	24,1	.74452	54,1	.25548
.627	.82536	78,1	.08030	24,1	.74506	54,0	.25494
.628	.82614	78,0	.08054	24,2	.74560	53,8	.25440
.629	.82692	77,9	.08078	24,2	.74614	53,7	.25386
0.630	9.82770	77,8	0.08102	24,2	9.74667	53,6	0.25333
.631	.82848	77,7	.08126	24,3	.74721	53,5	.25279
.632	.82925	77,6	.08151	24,3	.74774	53,3	.25226
.633	.83003	77,5	.08175	24,3	.74828	53,2	.25172
.634	.83080	77,4	.08200	24,4	.74881	53,1	.25119
0.635	9.83158	77,3	0.08224	24,4	9.74934	53,0	0.25066
.636	.83235	77,3	.08248	24,4	.74987	52,8	.25013
.637	.83312	77,2	.08273	24,4	.75040	52,7	.24960
.638	.83389	77,1	.08297	24,5	.75092	52,6	.24908
.639	.83466	77,0	.08322	24,5	.75145	52,5	.24855
0.640	9.83543	76,9	0.08346	24,5	9.75197	52,3	0.24803
.641	.83620	76,8	.08371	24,6	.75249	52,2	.24751
.642	.83697	76,7	.08395	24,6	.75302	52,1	.24698
.643	.83774	76,6	.08420	24,6	.75354	52,0	.24646
.644	.83850	76,5	.08445	24,7	.75406	51,9	.24594
0.645	9.83927	76,4	0.08469	24,7	9.75457	51,7	0.24543
.646	.84003	76,3	.08494	24,7	.75509	51,6	.24491
.647	.84079	76,2	.08519	24,7	.75561	51,5	.24439
.648	.84155	76,1	.08543	24,8	.75612	51,4	.24388
.649	.84232	76,1	.08568	24,8	.75663	51,3	.24337
0.650	9.84308	76,0	0.08593	24,8	9.75715	51,1	0.24285
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.650	9.84308	76,0	0.08593	24,8	9.75715	51,1	0.24285
.651	.84383	75,9	.08618	24,9	.75766	51,0	.24234
.652	.84459	75,8	.08643	24,9	.75817	50,9	.24183
.653	.84535	75,7	.08668	24,9	.75867	50,8	.24133
.654	.84611	75,6	.08693	24,9	.75918	50,7	.24082
0.655	9.84686	75,5	0.08718	25,0	9.75969	50,6	0.24031
.656	.84762	75,4	.08742	25,0	.76019	50,4	.23981
.657	.84837	75,4	.08768	25,0	.76070	50,3	.23930
.658	.84912	75,3	.08793	25,1	.76120	50,2	.23880
.659	.84988	75,2	.08818	25,1	.76170	50,1	.23830
0.660	9.85063	75,1	0.08843	25,1	9.76220	50,0	0.23780
.661	.85138	75,0	.08868	25,1	.76270	49,9	.23730
.662	.85213	74,9	.08893	25,2	.76320	49,7	.23680
.663	.85288	74,8	.08918	25,2	.76369	49,6	.23631
.664	.85362	74,7	.08943	25,2	.76419	49,5	.23581
0.665	9.85437	74,7	0.08969	25,3	9.76469	49,4	0.23531
.666	.85512	74,6	.08994	25,3	.76518	49,3	.23482
.667	.85586	74,5	.09019	25,3	.76567	49,2	.23433
.668	.85661	74,4	.09045	25,3	.76616	49,1	.23384
.669	.85735	74,3	.09070	25,4	.76665	48,9	.23335
0.670	9.85809	74,2	0.09095	25,4	9.76714	48,8	0.23286
.671	.85884	74,2	.09121	25,4	.76763	48,7	.23237
.672	.85958	74,1	.09146	25,5	.76812	48,6	.23188
.673	.86032	74,0	.09172	25,5	.76860	48,5	.23140
.674	.86106	73,9	.09197	25,5	.76909	48,4	.23091
0.675	9.86180	73,8	0.09223	25,5	9.76957	48,3	0.23043
.676	.86253	73,7	.09248	25,6	.77005	48,2	.22995
.677	.86327	73,7	.09274	25,6	.77053	48,1	.22947
.678	.86401	73,6	.09300	25,6	.77101	47,9	.22899
.679	.86474	73,5	.09325	25,7	.77149	47,8	.22851
0.680	9.86548	73,4	0.09351	25,7	9.77197	47,7	0.22803
.681	.86621	73,3	.09377	25,7	.77245	47,6	.22755
.682	.86694	73,3	.09402	25,7	.77292	47,5	22708
.683	.86768	73,2	.09428	25,8	.77340	47,4	22660
.684	.86841	73,1	.09454	25,8	.77387	47,3	.22613
0.685	9.86914	73,0	0.09480	25,8	9.77434	47,2	0.22566
.686	.86987	72,9	.09505	25,9	.77481	47,1	.22519
.687	.87060	72,9	.09531	25,9	.77528	47,0	.22472
.688	.87133	72,8	.09557	25,9	.77575	46,9	.22425
.689	.87205	72,7	.09583	25,9	.77622	46,8	.22378
0.690	9.87278	72,6	0.09609	26,0	9.77669	46,7	0.22331
.691	.87351	72,5	.09635	26,0	.77715	46,6	.22285
.692	.87423	72,5	.09661	26,0	.77762	46,4	.22238
.693	.87495	72,4	.09687	26,1	.77808	46,3	.22192
.694	.87568	72,3	.09713	26,1	.77855	46,2	.22145
0.695	9.87640	72,2	0.09739	26,1	9.77901	46,1	0.22099
.696	.87712	72,2	.09765	26,1	.77947	46,0	.22053
.697	.87784	72,1	.09792	26,2	.77993	45,9	.22007
.698	.87856	72,0	.09818	26,2	.78039	45,8	.21961
.699	.87928	71,9	.09844	26,2	.78084	45,7	.21916
0.700	9.88000	71,9	0.09870	26,2	9.78130	45,6	0.21870
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.700	9.88000	71,9	0.09870	26,2	9.78130	45,6	0.21870
.701	.88072	71,8	.09896	26,3	.78176	45,5	.21824
.702	.88144	71,7	.09923	26,3	.78221	45,4	.21779
.703	.88216	71,6	.09949	26,3	.78266	45,3	.21734
.704	.88287	71,6	.09975	26,4	.78312	45,2	.21688
0.705	9.88359	71,5	0.10002	26,4	9.78357	45,1	0.21643
.706	.88430	71,4	.10028	26,4	.78402	45,0	.21598
.707	.88502	71,3	.10055	26,4	.78447	44,9	.21553
.708	.88573	71,3	.10081	26,5	.78492	44,8	.21508
.709	.88644	71,2	.10108	26,5	.78536	44,7	.21464
0.710	9.88715	71,1	0.10134	26,5	9.78581	44,6	0.21419
.711	.88786	71,0	.10161	26,5	.78626	44,5	.21374
.712	.88857	71,0	.10187	26,6	.78670	44,4	.21330
.713	.88928	70,9	.10214	26,6	.78714	44,3	.21286
.714	.88999	70,8	.10240	26,6	.78759	44,2	.21241
0.715	9.89070	70,8	0.10267	26,7	9.78803	44,1	0.21197
.716	.89141	70,7	.10294	26,7	.78847	44,0	.21153
.717	.89211	70,6	.10320	26,7	.78891	43,9	.21109
.718	.89282	70,5	.10347	26,7	.78935	43,8	.21065
.719	.89352	70,5	.10374	26,8	.78978	43,7	.21022
0.720	9.89423	70,4	0.10401	26,8	9.79022	43,6	0.20978
.721	.89493	70,3	.10427	26,8	.79066	43,5	.20934
.722	.89563	70,3	.10454	26,8	.79109	43,4	.20891
.723	.89634	70,2	.10481	26,9	.79153	43,3	.20847
.724	.89704	70,1	.10508	26,9	.79196	43,2	.20804
0.725	9.89774	70,0	0.10535	26,9	9.79239	43,1	0.20761
.726	.89844	70,0	.10562	27,0	.79282	43,0	.20718
.727	.89914	69,9	.10589	27,0	.79325	42,9	.20675
.728	.89984	69,8	.10616	27,0	.79368	42,8	.20632
.729	.90054	69,8	.10643	27,0	.79411	42,7	.20589
0.730	9.90123	69,7	0.10670	27,1	9.79453	42,6	0.20547
.731	.90193	69,6	.10697	27,1	.79496	42,5	.20504
.732	.90263	69,6	.10724	27,1	.79538	42,5	.20462
.733	.90332	69,5	.10751	27,1	.79581	42,4	.20419
.734	.90402	69,4	.10778	27,2	.79623	42,3	.20377
0.735	9.90471	69,4	0.10805	27,2	9.79665	42,2	0.20335
.736	.90540	69,3	.10833	27,2	.79708	42,1	.20292
.737	.90610	69,2	.10860	27,2	.79750	42,0	.20250
.738	.90679	69,2	.10887	27,3	.79791	41,9	.20209
.739	.90748	69,1	.10915	27,3	.79833	41,8	.20167
0.740	9.90817	69,0	0.10942	27,3	9.79875	41,7	0.20125
.741	.90886	69,0	.10969	27,3	.79917	41,6	.20083
.742	.90955	68,9	.10997	27,4	.79958	41,5	.20042
.743	.91024	68,8	.11024	27,4	.80000	41,4	.20000
.744	.91092	68,8	.11051	27,4	.80041	41,3	.19959
0.745	9.91161	68,7	0.11079	27,5	9.80082	41,2	0.19918
.746	.91230	68,6	.11106	27,5	.80124	41,2	.19876
.747	.91298	68,6	.11134	27,5	.80165	41,1	.19835
.748	.91367	68,5	.11161	27,5	.80206	41,0	.19794
.749	.91436	68,4	.11189	27,6	.80247	40,9	.19753
0.750	9.91504	68,4	0.11216	27,6	9.80288	40,8	0.19712
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
0.750	9.91504	68,4	0.11216	27,6	9.80288	40,8	0.19712
.751	.91572	68,3	.11244	27,6	.80328	40,7	.19672
.752	.91641	68,2	.11272	27,6	.80369	40,6	.19631
.753	.91709	68,2	.11299	27,7	.80410	40,5	.19590
.754	.91777	68,1	.11327	27,7	.80450	40,4	.19550
0.755	9.91845	68,1	0.11355	27,7	9.80490	40,3	0.19510
.756	.91913	68,0	.11382	27,7	.80531	40,3	.19469
.757	.91981	67,9	.11410	27,8	.80571	40,2	.19429
.758	.92049	67,9	.11438	27,8	.80611	40,1	.19389
.759	.92117	67,8	.11466	27,8	.80651	40,0	.19349
0.760	9.92185	67,7	0.11493	27,8	9.80691	39,9	0.19309
.761	.92252	67,7	.11521	27,9	.80731	39,8	.19269
.762	.92320	67,6	.11549	27,9	.80771	39,7	.19229
.763	.92387	67,6	.11577	27,9	.80810	39,6	.19190
.764	.92455	67,5	.11605	27,9	.80850	39,6	.19150
0.765	9.92522	67,4	0.11633	28,0	9.80889	39,5	0.19111
.766	.92590	67,4	.11661	28,0	.80929	39,4	.19071
.767	.92657	67,3	.11689	28,0	.80968	39,3	.19032
.768	.92724	67,3	.11717	28,0	.81007	39,2	.18993
.769	.92792	67,2	.11745	28,1	.81047	39,1	.18953
0.770	9.92859	67,1	0.11773	28,1	9.81086	39,0	0.18914
.771	.92926	67,1	.11801	28,1	.81125	39,0	.18875
.772	.92993	67,0	.11829	28,1	.81164	38,9	.18836
.773	.93060	67,0	.11858	28,2	.81202	38,8	.18798
.774	.93127	66,9	.11886	28,2	.81241	38,7	.18759
0.775	9.93194	66,8	0.11914	28,2	9.81280	38,6	0.18720
.776	.93261	66,8	.11942	28,2	.81318	38,5	.18682
.777	.93327	66,7	.11970	28,3	.81357	38,4	.18643
.778	.93394	66,7	.11999	28,3	.81395	38,4	.18605
.779	.93461	66,6	.12027	28,3	.81434	38,3	.18566
0.780	9.93527	66,5	0.12055	28,3	9.81472	38,2	0.18528
.781	.93594	66,5	.12084	28,4	.81510	38,1	.18490
.782	.93660	66,4	.12112	28,4	.81548	38,0	.18452
.783	.93727	66,4	.12141	28,4	.81586	37,9	.18414
.784	.93793	66,3	.12169	28,4	.81624	37,9	.18376
0.785	9.93859	66,2	0.12197	28,5	9.81662	37,8	0.18338
.786	.93925	66,2	.12226	28,5	.81699	37,7	.18301
.787	.93992	66,1	.12254	28,5	.81737	37,6	.18263
.788	.94058	66,1	.12283	28,5	.81775	37,5	.18225
.789	.94124	66,0	.12312	28,6	.81812	37,4	.18188
0.790	9.94190	66,0	0.12340	28,6	9.81850	37,4	0.18150
.791	.94256	65,9	.12369	28,6	.81887	37,3	.18113
.792	.94321	65,8	.12397	28,6	.81924	37,2	.18076
.793	.94387	65,8	.12426	28,7	.81961	37,1	.18039
.794	.94453	65,7	.12455	28,7	.81998	37,0	.18002
0.795	9.94519	65,7	0.12483	28,7	9.82035	37,0	0.17965
.796	.94584	65,6	.12512	28,7	.82072	36,9	.17928
.797	.94650	65,6	.12541	28,8	.82109	36,8	.17891
.798	.94716	65,5	.12570	28,8	.82146	36,7	.17854
.799	.94781	65,5	.12598	28,8	.82183	36,6	.17817
0.800	9.94846	65,4	0.12627	28,8	9.82219	36,6	0.17781
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.800	9.94846	65,4	0.12627	28,8	9.82219	36,6	0.17781
.801	.94912	65,3	.12656	28,9	.82256	36,5	.17744
.802	.94977	65,3	.12685	28,9	.82292	36,4	.17708
.803	.95042	65,2	.12714	28,9	.82329	36,3	.17671
.804	.95108	65,2	.12743	28,9	.82365	36,2	.17635
0.805	9.95173	65,1	0.12772	29,0	9.82401	36,2	0.17599
.806	.95238	65,1	.12801	29,0	.82437	36,1	.17563
.807	.95303	65,0	.12830	29,0	.82473	36,0	.17527
.808	.95368	65,0	.12859	29,0	.82509	35,9	.17491
.809	.95433	64,9	.12888	29,1	.82545	35,9	.17455
0.810	9.95498	64,9	0.12917	29,1	9.82581	35,8	0.17419
.811	.95563	64,8	.12946	29,1	.82617	35,7	.17383
.812	.95627	64,8	.12975	29,1	.82652	35,6	.17348
.813	.95692	64,7	.13004	29,2	.82688	35,5	.17312
.814	.95757	64,6	.13033	29,2	.82723	35,5	.17277
0.815	9.95821	64,6	0.13063	29,2	9.82759	35,4	0.17241
.816	.95886	64,5	.13092	29,2	.82794	35,3	.17206
.817	.95950	64,5	.13121	29,2	.82829	35,2	.17171
.818	.96015	64,4	.13150	29,3	.82865	35,2	.17135
.819	.96079	64,4	.13180	29,3	.82900	35,1	.17100
0.820	9.96144	64,3	0.13209	29,3	9.82935	35,0	0.17065
.821	.96208	64,3	.13238	29,3	.82970	34,9	.17030
.822	.96272	64,2	.13268	29,4	.83005	34,9	.16995
.823	.96336	64,2	.13297	29,4	.83040	34,8	.16960
.824	.96401	64,1	.13326	29,4	.83074	34,7	.16926
0.825	9.96465	64,1	0.13356	29,4	9.83109	34,6	0.16891
.826	.96529	64,0	.13385	29,5	.83144	34,6	.16856
.827	.96593	64,0	.13415	29,5	.83178	34,5	.16822
.828	.96657	63,9	.13444	29,5	.83213	34,4	.16787
.829	.96721	63,9	.13474	29,5	.83247	34,3	.16753
0.830	9.96784	63,8	0.13503	29,6	9.83281	34,3	0.16719
.831	.96848	63,8	.13533	29,6	.83316	34,2	.16684
.832	.96912	63,7	.13562	29,6	.83350	34,1	.16650
.833	.96976	63,7	.13592	29,6	.83384	34,0	.16616
.834	.97039	63,6	.13622	29,6	.83418	34,0	.16582
0.835	9.97103	63,6	0.13651	29,7	9.83452	33,9	0.16548
.836	.97167	63,5	.13681	29,7	.83486	33,8	.16514
.837	.97230	63,5	.13711	29,7	.83519	33,8	.16481
.838	.97293	63,4	.13740	29,7	.83553	33,7	.16447
.839	.97357	63,4	.13770	29,8	.83587	33,6	.16413
0.840	9.97420	63,3	0.13800	29,8	9.83620	33,5	0.16380
.841	.97484	63,3	.13830	29,8	.83654	33,5	.16346
.842	.97547	63,2	.13860	29,8	.83687	33,4	.16313
.843	.97610	63,2	.13889	29,9	.83721	33,3	.16279
.844	.97673	63,1	.13919	29,9	.83754	33,3	.16246
0.845	9.97736	63,1	0.13949	29,9	9.83787	33,2	0.16213
.846	.97799	63,0	.13979	29,9	.83820	33,1	.16180
.847	.97862	63,0	.14009	29,9	.83853	33,0	.16147
.848	.97925	62,9	.14039	30,0	.83886	33,0	.16114
.849	.97988	62,9	.14069	30,0	.83919	32,9	.16081
0.850	9.98051	62,8	0.14099	30,0	9.83952	32,8	0.16048
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.850	9.98051	62,8	0.14099	30,0	9.83952	32,8	0.16048
.851	.98114	62,8	.14129	30,0	.83985	32,8	.16015
.852	.98177	62,7	.14159	30,1	.84018	32,7	.15982
.853	.98239	62,7	.14189	30,1	.84050	32,6	.15950
.854	.98302	62,7	.14219	30,1	.84083	32,6	.15917
0.855	9.98365	62,6	0.14249	30,1	9.84115	32,5	0.15885
.856	.98427	62,6	.14279	30,1	.84148	32,4	.15852
.857	.98490	62,5	.14310	30,2	.84180	32,3	.15820
.858	.98552	62,5	.14340	30,2	.84213	32,3	.15787
.859	.98615	62,4	.14370	30,2	.84245	32,2	.15755
0.860	9.98677	62,4	0.14400	30,2	9.84277	32,1	0.15723
.861	.98739	62,3	.14430	30,3	.84309	32,1	.15691
.862	.98802	62,3	.14461	30,3	.84341	32,0	.15659
.863	.98864	62,2	.14491	30,3	.84373	31,9	.15627
.864	.98926	62,2	.14521	30,3	.84405	31,9	.15595
0.865	9.98988	62,1	0.14552	30,3	9.84437	31,8	0.15563
.866	.99051	62,1	.14582	30,4	.84469	31,7	.15531
.867	.99113	62,1	.14612	30,4	.84500	31,7	.15500
.868	.99175	62,0	.14643	30,4	.84532	31,6	.15468
.869	.99237	62,0	.14673	30,4	.84563	31,5	.15437
0.870	9.99299	61,9	0.14704	30,5	9.84595	31,5	0.15405
.871	.99361	61,9	.14734	30,5	.84626	31,4	.15374
.872	.99422	61,8	.14765	30,5	.84658	31,3	.15342
.873	.99484	61,8	.14795	30,5	.84689	31,3	.15311
.874	.99546	61,7	.14826	30,5	.84720	31,2	.15280
0.875	9.99608	61,7	0.14856	30,6	9.84751	31,1	0.15249
.876	.99669	61,7	.14887	30,6	.84783	31,1	.15217
.877	.99731	61,6	.14917	30,6	.84814	31,0	.15186
.878	.99793	61,6	.14948	30,6	.84845	30,9	.15155
.879	.99854	61,5	.14979	30,7	.84875	30,9	.15125
0.880	9.99916	61,5	0.15009	30,7	9.84906	30,8	0.15094
.881	.99977	61,4	.15040	30,7	.84937	30,7	.15063
.882	0.00038	61,4	.15071	30,7	.84968	30,7	.15032
.883	.00100	61,3	.15101	30,7	.84998	30,6	.15002
.884	.00161	61,3	.15132	30,8	.85029	30,5	.14971
0.885	0.00222	61,3	0.15163	30,8	9.85059	30,5	0.14941
.886	.00284	61,2	.15194	30,8	.85090	30,4	.14910
.887	.00345	61,2	.15225	30,8	.85120	30,3	.14880
.888	.00406	61,1	.15255	30,9	.85151	30,3	.14849
.889	.00467	61,1	.15286	30,9	.85181	30,2	.14819
0.890	0.00528	61,0	0.15317	30,9	9.85211	30,2	0.14789
.891	.00589	61,0	.15348	30,9	.85241	30,1	.14759
.892	.00650	61,0	.15379	30,9	.85271	30,0	.14729
.893	.00711	60,9	.15410	31,0	.85301	30,0	.14699
.894	.00772	60,9	.15441	31,0	.85331	29,9	.14669
0.895	0.00833	60,8	0.15472	31,0	9.85361	29,8	0.14639
.896	.00894	60,8	.15503	31,0	.85391	29,8	.14609
.897	.00955	60,8	.15534	31,0	.85421	29,7	.14579
.898	.01015	60,7	.15565	31,1	.85450	29,6	.14550
.899	.01076	60,7	.15596	31,1	.85480	29,6	.14520
0.900	0.01137	60,6	0.15627	31,1	9.85509	29,5	0.14491
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.900	0.01137	60,6	0.15627	31,1	9.85509	29,5	0.14491
.901	.01197	60,6	.15658	31,1	.85539	29,5	.14461
.902	.01258	60,5	.15689	31,2	.85568	29,4	.14432
.903	.01318	60,5	.15721	31,2	.85598	29,3	.14402
.904	.01379	60,5	.15752	31,2	.85627	29,3	.14373
0.905	0.01439	60,4	0.15783	31,2	9.85656	29,2	0.14344
.906	.01500	60,4	.15814	31,2	.85685	29,2	.14315
.907	.01560	60,3	.15846	31,3	.85715	29,1	.14285
.908	.01620	60,3	.15877	31,3	.85744	29,0	.14256
.909	.01681	60,3	.15908	31,3	.85773	29,0	.14227
0.910	0.01741	60,2	0.15939	31,3	9.85801	28,9	0.14199
.911	.01801	60,2	.15971	31,3	.85830	28,8	.14170
.912	.01861	60,1	.16002	31,4	.85859	28,8	.14141
.913	.01921	60,1	.16033	31,4	.85888	28,7	.14112
.914	.01981	60,1	.16065	31,4	.85917	28,7	.14083
0.915	0.02041	60,0	0.16096	31,4	9.85945	28,6	0.14055
.916	.02101	60,0	.16128	31,4	.85974	28,5	.14026
.917	.02161	59,9	.16159	31,5	.86002	28,5	.13998
.918	.02221	59,9	.16191	31,5	.86031	28,4	.13969
.919	.02281	59,9	.16222	31,5	.86059	28,4	.13941
0.920	0.02341	59,8	0.16254	31,5	9.86088	28,3	0.13912
.921	.02401	59,8	.16285	31,5	.86116	28,2	.13884
.922	.02461	59,8	.16317	31,6	.86144	28,2	.13856
.923	.02520	59,7	.16348	31,6	.86172	28,1	.13828
.924	.02580	59,7	.16380	31,6	.86200	28,1	.13800
0.925	0.02640	59,6	0.16411	31,6	9.86228	28,0	0.13772
.926	.02699	59,6	.16443	31,6	.86256	27,9	.13744
.927	.02759	59,6	.16475	31,7	.86284	27,9	.13716
.928	.02819	59,5	.16506	31,7	.86312	27,8	.13688
.929	.02878	59,5	.16538	31,7	.86340	27,8	.13660
0.930	0.02937	59,4	0.16570	31,7	9.86368	27,7	0.13632
.931	.02997	59,4	.16602	31,7	.86395	27,7	.13605
.932	.03056	59,4	.16633	31,8	.86423	27,6	.13577
.933	.03116	59,3	.16665	31,8	.86450	27,5	.13550
.934	.03175	59,3	.16697	31,8	.86478	27,5	.13522
0.935	0.03234	59,3	0.16729	31,8	9.86505	27,4	0.13495
.936	.03293	59,2	.16761	31,9	.86533	27,4	.13467
.937	.03353	59,2	.16792	31,9	.86560	27,3	.13440
.938	.03412	59,1	.16824	31,9	.86587	27,3	.13413
.939	.03471	59,1	.16856	31,9	.86615	27,2	.13385
0.940	0.03530	59,1	0.16888	31,9	9.86642	27,1	0.13358
.941	.03589	59,0	.16920	32,0	.86669	27,1	.13331
.942	.03648	59,0	.16952	32,0	.86696	27,0	.13304
.943	.03707	59,0	.16984	32,0	.86723	27,0	.13277
.944	.03766	58,9	.17016	32,0	.86750	26,9	.13250
0.945	0.03825	58,9	0.17048	32,0	9.86777	26,9	0.13223
.946	.03884	58,9	.17080	32,0	.86804	26,8	.13196
.947	.03943	58,8	.17112	32,1	.86830	26,7	.13170
.948	.04001	58,8	.17144	32,1	.86857	26,7	.13143
.949	.04060	58,7	.17176	32,1	.86884	26,6	.13116
0.950	0.04119	58,7	0.17208	32,1	9.86910	26,6	0.13090
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
0.950	0.04119	58,7	0.17208	32,1	9.86910	26,6	0.13090
.951	.04178	58,7	.17241	32,1	.86937	26,5	.13063
.952	.04236	58,6	.17273	32,2	.86963	26,5	.13037
.953	.04295	58,6	.17305	32,2	.86990	26,4	.13010
.954	.04353	58,6	.17337	32,2	.87016	26,4	.12984
0.955	0.04412	58,5	0.17369	32,2	9.87043	26,3	0.12957
.956	.04470	58,5	.17402	32,2	.87069	26,2	.12931
.957	.04529	58,5	.17434	32,3	.87095	26,2	.12905
.958	.04587	58,4	.17466	32,3	.87121	26,1	.12879
.959	.04646	58,4	.17498	32,3	.87147	26,1	.12853
0.960	0.04704	58,4	0.17531	32,3	9.87173	26,0	0.12827
.961	.04763	58,3	.17563	32,3	.87199	26,0	.12801
.962	.04821	58,3	.17595	32,4	.87225	25,9	.12775
.963	.04879	58,2	.17628	32,4	.87251	25,9	.12749
.964	.04937	58,2	.17660	32,4	.87277	25,8	.12723
0.965	0.04996	58,2	0.17693	32,4	9.87303	25,8	0.12697
.966	.05054	58,1	.17725	32,4	.87329	25,7	.12671
.967	.05112	58,1	.17757	32,5	.87354	25,7	.12646
.968	.05170	58,1	.17790	32,5	.87380	25,6	.12620
.969	.05228	58,0	.17822	32,5	.87406	25,5	.12594
0.970	0.05286	58,0	0.17855	32,5	9.87431	25,5	0.12569
.971	.05344	58,0	.17887	32,5	.87456	25,4	.12544
.972	.05402	57,9	.17920	32,6	.87482	25,4	.12518
.973	.05460	57,9	.17953	32,6	.87507	25,3	.12493
.974	.05518	57,9	.17985	32,6	.87533	25,3	.12467
0.975	0.05576	57,8	0.18018	32,6	9.87558	25,2	0.12442
.976	.05633	57,8	.18050	32,6	.87583	25,2	.12417
.977	.05691	57,8	.18083	32,6	.87608	25,1	.12392
.978	.05749	57,7	.18116	32,7	.87633	25,1	.12367
.979	.05807	57,7	.18148	32,7	.87658	25,0	.12342
0.980	0.05864	57,7	0.18181	32,7	9.87683	25,0	0.12317
.981	.05922	57,6	.18214	32,7	.87708	24,9	.12292
.982	.05980	57,6	.18246	32,7	.87733	24,9	.12267
.983	.06037	57,6	.18279	32,8	.87758	24,8	.12242
.984	.06095	57,5	.18312	32,8	.87783	24,8	.12217
0.985	0.06152	57,5	0.18345	32,8	9.87807	24,7	0.12193
.986	.06210	57,5	.18378	32,8	.87832	24,7	.12168
.987	.06267	57,4	.18410	32,8	.87857	24,6	.12143
.988	.06325	57,4	.18443	32,9	.87881	24,6	.12119
.989	.06382	57,4	.18476	32,9	.87906	24,5	.12094
0.990	0.06439	57,3	0.18509	32,9	9.87930	24,5	0.12070
.991	.06497	57,3	.18542	32,9	.87955	24,4	.12045
.992	.06554	57,3	.18575	32,9	.87979	24,3	.12021
.993	.06611	57,2	.18608	32,9	.88003	24,3	.11997
.994	.06669	57,2	.18641	33,0	.88028	24,2	.11972
0.995	0.06726	57,2	0.18674	33,0	9.88052	24,2	0.11948
.996	.06783	57,2	.18707	33,0	.88076	24,1	.11924
.997	.06840	57,1	.18740	33,0	.88100	24,1	.11900
.998	.06897	57,1	.18773	33,0	.88124	24,0	.11876
.999	.06954	57,1	.18806	33,1	.88148	24,0	.11852
1.000	0.07011	57,0	0.18839	33,1	9.88172	23,9	0.11828
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
1.000	0.07011	57,0	0.18839	33,1	9.88172	23,9	0.11828
.001	.07068	57,0	.18872	33,1	.88196	23,9	.11804
.002	.07125	57,0	.18905	33,1	.88220	23,8	.11780
.003	.07182	56,9	.18938	33,1	.88244	23,8	.11756
.004	.07239	56,9	.18971	33,1	.88268	23,8	.11732
1.005	0.07296	56,9	0.19004	33,2	9.88291	23,7	0.11709
.006	.07353	56,8	.19038	33,2	.88315	23,7	.11685
.007	.07410	56,8	.19071	33,2	.88339	23,6	.11661
.008	.07466	56,8	.19104	33,2	.88362	23,6	.11638
.009	.07523	56,7	.18137	33,2	.88386	23,5	.11614
1.010	0.07580	56,7	0.19171	33,3	9.88409	23,5	0.11591
.011	.07637	56,7	.19204	33,3	.88433	23,4	.11567
.012	.07693	56,7	.19237	33,3	.88456	23,4	.11544
.013	.07750	56,6	.19270	33,3	.88480	23,3	.11520
.014	.07807	56,6	.19304	33,3	.88503	23,3	.11497
1.015	0.07863	56,6	0.19337	33,3	9.88526	23,2	0.11474
.016	.07920	56,5	.19370	33,4	.88549	23,2	.11451
.017	.07976	56,5	.19404	33,4	.88572	23,1	.11428
.018	.08033	56,5	.19437	33,4	.88595	23,1	.11405
.019	.08089	56,4	.19471	33,4	.88619	23,0	.11381
1.020	0.08146	56,4	0.19504	33,4	9.88642	23,0	0.11358
.021	.08202	56,4	.19537	33,5	.88664	22,9	.11336
.022	.08258	56,4	.19571	33,5	.88687	22,9	.11313
.023	.08315	56,3	.19604	33,5	.88710	22,8	.11290
.024	.08371	56,3	.19638	33,5	.88733	22,8	.11267
1.025	0.08427	56,3	0.19671	33,5	9.88756	22,7	0.11244
.026	.08483	56,2	.19705	33,5	.88779	22,7	.11221
.027	.08540	56,2	.19738	33,6	.88801	22,6	.11199
.028	.08596	56,2	.19772	33,6	.88824	22,6	.11176
.029	.08652	56,1	.19806	33,6	.88846	22,6	.11154
1.030	0.08708	56,1	0.19839	33,6	9.88869	22,5	0.11131
.031	.08764	56,1	.19873	33,6	.88891	22,5	.11109
.032	.08820	56,1	.19906	33,6	.88914	22,4	.11086
.033	.08876	56,0	.19940	33,7	.88936	22,4	.11064
.034	.08932	56,0	.19974	33,7	.88959	22,3	.11041
1.035	0.08988	56,0	0.20007	33,7	9.88981	22,3	0.11019
.036	.09044	55,9	.20041	33,7	.89003	22,2	.10997
.037	.09100	55,9	.20075	33,7	.89025	22,2	.10975
.038	.09156	55,9	.20109	33,7	.89048	22,1	.10952
.039	.09212	55,9	.20142	33,8	.89070	22,1	.10930
1.040	0.09268	55,8	0.20176	33,8	9.89092	22,0	0.10908
.041	.09324	55,8	.20210	33,8	.89114	22,0	.10886
.042	.09379	55,8	.20244	33,8	.89136	22,0	.10864
.043	.09435	55,7	.20278	33,8	.89158	21,9	.10842
.044	.09491	55,7	.20311	33,9	.89180	21,9	.10820
1.045	0.09547	55,7	0.20345	33,9	9.89201	21,8	0.10799
.046	.09602	55,7	.20379	33,9	.89223	21,8	.10777
.047	.09658	55,6	.20413	33,9	.89245	21,7	.10755
.048	.09714	55,6	.20447	33,9	.89267	21,7	.10733
.049	.09769	55,6	.20481	33,9	.89288	21,6	.10712
1.050	0.09825	55,6	0.20515	34,0	9.89310	21,6	0.10690
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
1.050	0.09825	55,6	0.20515	34,0	9.89310	21,6	0.10690
.051	.09880	55,5	.20549	34,0	.89331	21,6	.10669
.052	.09936	55,5	.20583	34,0	.89353	21,5	.10647
.053	.09991	55,5	.20617	34,0	.89375	21,5	.10625
.054	.10047	55,4	.20651	34,0	.89396	21,4	.10604
1.055	0.10102	55,4	0.20685	34,0	9.89417	21,4	0.10583
.056	.10158	55,4	.20719	34,1	.89439	21,3	.10561
.057	.10213	55,4	.20753	34,1	.89460	21,3	.10540
.058	.10268	55,3	.20787	34,1	.89481	21,2	.10519
.059	.10324	55,3	.20821	34,1	.89502	21,2	.10498
1.060	0.10379	55,3	0.20855	34,1	9.89524	21,2	0.10476
.061	.10434	55,3	.20889	34,1	.89545	21,1	.10455
.062	.10489	55,2	.20924	34,2	.89566	21,1	.10434
.063	.10545	55,2	.20958	34,2	.89587	21,0	.10413
.064	.10600	55,2	.20992	34,2	.89608	21,0	.10392
1.065	0.10655	55,1	0.21026	34,2	9.89629	20,9	0.10371
.066	.10710	55,1	.21060	34,2	.89650	20,9	.10350
.067	.10765	55,1	.21094	34,2	.89671	20,9	.10329
.068	.10820	55,1	.21129	34,3	.89692	20,8	.10308
.069	.10875	55,0	.21163	34,3	.89712	20,8	.10288
1.070	0.10930	55,0	0.21197	34,3	9.89733	20,7	0.10267
.071	.10985	55,0	.21232	34,3	.89754	20,7	.10246
.072	.11040	55,0	.21266	34,3	.89774	20,6	.10226
.073	.11095	54,9	.21300	34,3	.89795	20,6	.10205
.074	.11150	54,9	.21335	34,4	.89816	20,6	.10184
1.075	0.11205	54,9	0.21369	34,4	9.89836	20,5	0.10164
.076	.11260	54,9	.21403	34,4	.89857	20,5	.10143
.077	.11315	54,8	.21438	34,4	.89877	20,4	.10123
.078	.11370	54,8	.21472	34,4	.89898	20,4	.10102
.079	.11424	54,8	.21507	34,4	.89918	20,3	.10082
1.080	0.11479	54,8	0.21541	34,4	9.89938	20,3	0.10062
.081	.11534	54,7	.21575	34,5	.89959	20,3	.10041
.082	.11589	54,7	.21610	34,5	.89979	20,2	.10021
.083	.11643	54,7	.21644	34,5	.89999	20,2	.10001
.084	.11698	54,7	.21679	34,5	.90019	20,1	.09981
1.085	0.11753	54,6	0.21713	34,5	9.90039	20,1	0.09961
.086	.11807	54,6	.21748	34,5	.90059	20,1	.09941
.087	.11862	54,6	.21782	34,6	.90079	20,0	.09921
.088	.11916	54,5	.21817	34,6	.90099	20,0	.09901
.089	.11971	54,5	.21852	34,6	.90119	19,9	.09881
1.090	0.12025	54,5	0.21886	34,6	9.90139	19,9	0.09861
.091	.12080	54,5	.21921	34,6	.90159	19,9	.09841
.092	.12134	54,4	.21955	34,6	.90179	19,8	.09821
.093	.12189	54,4	.21990	34,7	.90199	19,8	.09801
.094	.12243	54,4	.22025	34,7	.90218	19,7	.09782
1.095	0.12298	54,4	0.22059	34,7	9.90238	19,7	0.09762
.096	.12352	54,4	.22094	34,7	.90258	19,6	.09742
.097	.12406	54,3	.22129	34,7	.90277	19,6	.09723
.098	.12461	54,3	.22164	34,7	.90297	19,6	.09703
.099	.12515	54,3	.22198	34,7	.90317	19,5	.09683
1.100	0.12569	54,3	0.22233	34,8	9.90336	19,5	0.09664
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
1.100	0.12569	54,3	0.22233	34,8	9.90336	19,5	0.09664
.101	.12623	54,2	.22268	34,8	.90356	19,4	.09644
.102	.12678	54,2	.22303	34,8	.90375	19,4	.09625
.103	.12732	54,2	.22337	34,8	.90394	19,4	.09606
.104	.12786	54,2	.22372	34,8	.90414	19,3	.09586
1.105	0.12840	54,1	0.22407	34,8	9.90433	19,3	0.09567
.106	.12894	54,1	.22442	34,9	.90452	19,2	.09548
.107	.12948	54,1	.22477	34,9	.90472	19,2	.09528
.108	.13002	54,1	.22512	34,9	.90491	19,2	.09509
.109	.13056	54,0	.22547	34,9	.90510	19,1	.09490
1.110	0.13111	54,0	0.22582	34,9	9.90529	19,1	0.09471
.111	.13165	54,0	.22616	34,9	.90548	19,1	.09452
.112	.13218	54,0	.22651	35,0	.90567	19,0	.09433
.113	.13272	53,9	.22686	35,0	.90586	19,0	.09414
.114	.13326	53,9	.22721	35,0	.90605	18,9	.09395
1.115	0.13380	53,9	0.22756	35,0	9.90624	18,9	0.09376
.116	.13434	53,9	.22791	35,0	.90643	18,9	.09357
.117	.13488	53,8	.22826	35,0	.90662	18,8	.09338
.118	.13542	53,8	.22861	35,0	.90680	18,8	.09320
.119	.13596	53,8	.22896	35,1	.90699	18,7	.09301
1.120	0.13649	53,8	0.22931	35,1	9.90718	18,7	0.09282
.121	.13703	53,8	.22967	35,1	.90737	18,7	.09263
.122	.13757	53,7	.23002	35,1	.90755	18,6	.09245
.123	.13811	53,7	.23037	35,1	.90774	18,6	.09226
.124	.13864	53,7	.23072	35,1	.90792	18,6	.09208
1.125	0.13918	53,7	0.23107	35,1	9.90811	18,5	0.09189
.126	.13972	53,6	.23142	35,2	.90830	18,5	.09170
.127	.14025	53,6	.23177	35,2	.90848	18,4	.09152
.128	.14079	53,6	.23213	35,2	.90866	18,4	.09134
.129	.14133	53,6	.23248	35,2	.90885	18,4	.09115
1.130	0.14186	53,5	0.23283	35,2	9.90903	18,3	0.09097
.131	.14240	53,5	.23318	35,2	.90921	18,3	.09079
.132	.14293	53,5	.23353	35,3	.90940	18,3	.09060
.133	.14347	53,5	.23389	35,3	.90958	18,2	.09042
.134	.14400	53,5	.23424	35,3	.90976	18,2	.09024
1.135	0.14454	53,4	0.23459	35,3	9.90994	18,1	0.09006
.136	.14507	53,4	.23495	35,3	.91012	18,1	.08988
.137	.14560	53,4	.23530	35,3	.91030	18,1	.08970
.138	.14614	53,4	.23565	35,3	.91049	18,0	.08951
.139	.14667	53,3	.23601	35,4	.91067	18,0	.08933
1.140	0.14720	53,3	0.23636	35,4	9.91085	18,0	0.08915
.141	.14774	53,3	.23671	35,4	.91102	17,9	.08898
.142	.14827	53,3	.23707	35,4	.91120	17,9	.08880
.143	.14880	53,3	.23742	35,4	.91138	17,8	.08862
.144	.14934	53,2	.23778	35,4	.91156	17,8	.08844
1.145	0.14987	53,2	0.23813	35,4	9.91174	17,8	0.08826
.146	.15040	53,2	.23848	35,5	.91192	17,7	.08808
.147	.15093	53,2	.23884	35,5	.91209	17,7	.08791
.148	.15146	53,2	.23919	35,5	.91227	17,7	.08773
.149	.15200	53,1	.23955	35,5	.91245	17,6	.08755
1.150	0.15253	53,1	0.23990	35,5	9.91262	17,6	0.08738
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
1.150	0.15253	53,1	0.23990	35,5	9.91262	17,6	0.08738
.151	.15306	53,1	.24026	35,5	.91280	17,6	.08720
.152	.15359	53,1	.24061	35,5	.91297	17,5	.08703
.153	.15412	53,0	.24097	35,6	.91315	17,5	.08685
.154	.15465	53,0	.24133	35,6	.91332	17,5	.08668
1.155	0.15518	53,0	0.24168	35,6	9.91350	17,4	0.08650
.156	.15571	53,0	.24204	35,6	.91367	17,4	.08633
.157	.15624	53,0	.24239	35,6	.91385	17,3	.08615
.158	.15677	52,9	.24275	35,6	.91402	17,3	.08598
.159	.15730	52,9	.24311	36,6	.91419	17,3	.08581
1.160	0.15783	52,9	0.24346	35,7	9.91436	17,2	0.08564
.161	.15836	52,9	.24382	35,7	.91454	17,2	.08546
.162	.15888	52,9	.24418	35,7	.91471	17,2	.08529
.163	.15941	52,8	.24453	35,7	.91488	17,1	.08512
.164	.15994	52,8	.24489	35,7	.91505	17,1	.08495
1.165	0.16047	52,8	0.24525	35,7	9.91522	17,1	0.08478
.166	.16100	52,8	.24560	35,7	.91539	17,0	.08461
.167	.16152	52,7	.24596	35,8	.91556	17,0	.08444
.168	.16205	52,7	.24632	35,8	.91573	17,0	.08427
.169	.16258	52,7	.24668	35,8	.91590	16,9	.08410
1.170	0.16311	52,7	0.24703	35,8	9.91607	16,9	0.08393
.171	.16363	52,7	.24739	35,8	.91624	16,9	.08376
.172	.16416	52,6	.24775	35,8	.91641	16,8	.08359
.173	.16469	52,6	.24811	35,8	.91658	16,8	.08342
.174	.16521	52,6	.24847	35,9	.91674	16,8	.08326
1.175	0.16574	52,6	0.24883	35,9	9.91691	16,7	0.08309
.176	.16626	52,6	.24919	35,9	.91708	16,7	.08292
.177	.16679	52,5	.24954	35,9	.91724	16,7	.08276
.178	.16731	52,5	.24990	35,9	.91741	16,6	.08259
.179	.16784	52,5	.25026	35,9	.91758	16,6	.08242
1.180	0.16836	52,5	0.25062	35,9	9.91774	16,6	0.08226
.181	.16889	52,5	.25098	35,9	.91791	16,5	.08209
.182	.16941	52,4	.25134	36,0	.91807	16,5	.08193
.183	.16994	52,4	.25170	36,0	.91824	16,4	.08176
.184	.17046	52,4	.25206	36,0	.91840	16,4	.08160
1.185	0.17099	52,4	0.25242	36,0	9.91857	16,4	0.08143
.186	.17151	52,4	.25278	36,0	.91873	16,3	.08127
.187	.17203	52,3	.25314	36,0	.91889	16,3	.08111
.188	.17256	52,3	.25350	36,0	.91906	16,3	.08094
.189	.17308	52,3	.25386	36,1	.91922	16,2	.08078
1.190	0.17360	52,3	0.25422	36,1	9.91938	16,2	0.08062
.191	.17413	52,3	.25458	36,1	.91954	16,2	.08046
.192	.17465	52,2	.25494	36,1	.91970	16,2	.08030
.193	.17517	52,2	.25530	36,1	.91987	16,1	.08013
.194	.17569	52,2	.25567	36,1	.92003	16,1	.07997
1.195	0.17621	52,2	0.25603	36,1	9.92019	16,1	0.07981
.196	.17674	52,2	.25639	36,2	.92035	16,0	.07965
.197	.17726	52,2	.25675	36,2	.92051	16,0	.07949
.198	.17778	52,1	.25711	36,2	.92067	16,0	.07933
.199	.17830	52,1	.25747	36,2	.92083	15,9	.07917
1.200	0.17882	52,1	0.25784	36,2	9.92099	15,9	0.07901
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
1.200	0.17882	52,1	0.25784	36,2	9.92099	15,9	0.07901
.201	.17934	52,1	.25820	36,2	.92114	15,9	.07886
.202	.17985	52,1	.25856	36,2	.92130	15,8	.07870
.203	.18038	52,0	.25892	36,2	.92146	15,8	.07854
.204	.18090	52,0	.25929	36,3	.92162	15,8	.07838
1.205	0.18142	52,0	0.25965	36,3	9.92178	15,7	0.07822
.206	.18194	52,0	.26001	36,3	.92193	15,7	.07807
.207	.18246	52,0	.26037	36,3	.92209	15,7	.07791
.208	.18298	51,9	.26074	36,3	.92225	15,6	.07775
.209	.18350	51,9	.26110	36,3	.92240	15,6	.07760
1.210	0.18402	51,9	0.26146	36,3	9.92256	15,6	0.07744
.211	.18454	51,9	.26183	36,3	.92271	15,5	.07729
.212	.18506	51,9	.26219	36,4	.92287	15,5	.07713
.213	.18558	51,9	.26255	36,4	.92302	15,5	.07698
.214	.18610	51,8	.26292	36,4	.92318	15,4	.07682
1.215	0.18662	51,8	0.26328	36,4	9.92333	15,4	0.07667
.216	.18713	51,8	.26365	36,4	.92349	15,4	.07651
.217	.18765	51,8	.26401	36,4	.92364	15,4	.07636
.218	.18817	51,8	.26437	36,4	.92379	15,3	.07621
.219	.18869	51,7	.26474	36,5	.92395	15,3	.07605
1.220	0.18920	51,7	0.26510	36,5	9.92410	15,3	0.07590
.221	.18972	51,7	.26547	36,5	.92425	15,2	.07575
.222	.19024	51,7	.26583	36,5	.92440	15,2	.07560
.223	.19075	51,7	.26620	36,5	.92456	15,2	.07544
.224	.19127	51,7	.26656	36,5	.92471	15,1	.07529
1.225	0.19179	51,6	0.26693	36,5	9.92486	15,1	0.07514
.226	.19230	51,6	.26729	36,5	.92501	15,1	.07499
.227	.19282	51,6	.26766	36,6	.92516	15,0	.07484
.228	.19334	51,6	.26802	36,6	.92531	15,0	.07469
.229	.19385	51,6	.26839	36,6	.92546	15,0	.07454
1.230	0.19437	51,5	0.26876	36,6	9.92561	15,0	0.07439
.231	.19488	51,5	.26912	36,6	.92576	14,9	.07424
.232	.19540	51,5	.26949	36,6	.92591	14,9	.07409
.233	.19591	51,5	.26985	36,6	.92606	14,9	.07394
.234	.19643	51,5	.27022	36,6	.92621	14,8	.07379
1.235	0.19694	51,5	0.27059	36,7	9.92635	14,8	0.07365
.236	.19746	51,4	.27095	36,7	.92650	14,8	.07350
.237	.19797	51,4	.27132	36,7	.92665	14,7	.07335
.238	.19848	51,4	.27169	36,7	.92680	14,7	.07320
.239	.19900	51,4	.27205	36,7	.92694	14,7	.07306
1.240	0.19951	51,4	0.27242	36,7	9.92709	14,7	0.07291
.241	.20003	51,4	.27279	36,7	.92724	14,6	.07276
.242	.20054	51,3	.27316	36,7	.92738	14,6	.07262
.243	.20105	51,3	.27352	36,8	.92753	14,6	.07247
.244	.20157	51,3	.27389	36,8	.92767	14,5	.07233
1.245	0.20208	51,3	0.27426	36,8	9.92782	14,5	0.07218
.246	.20259	51,3	.27463	36,8	.92796	14,5	.07204
.247	.20310	51,2	.27499	36,8	.92811	14,4	.07189
.248	.20362	51,2	.27536	36,8	.92825	14,4	.07175
.249	.20413	51,2	.27573	36,8	.92840	14,4	.07160
1.250	0.20464	51,2	0.27610	36,8	9.92854	14,4	0.07146
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
1.250	0.20464	51,2	0.27610	36,8	9.92854	14,4	0.07146
.251	.20515	51,2	.27647	36,9	.92868	14,3	.07132
.252	.20566	51,2	.27684	36,9	.92883	14,3	.07117
.253	.20618	51,1	.27721	36,9	.92897	14,3	.07103
.254	.20669	51,1	.27757	36,9	.92911	14,2	.07089
1.255	0.20720	51,1	0.27794	36,9	9.92926	14,2	0.07074
.256	.20771	51,1	.27831	36,9	.92940	14,2	.07060
.257	.20822	51,1	.27868	36,9	.92954	14,2	.07046
.258	.20873	51,1	.27905	36,9	.92968	14,1	.07032
.259	.20924	51,0	.27942	36,9	.92982	14,1	.07018
1.260	0.20975	51,0	0.27979	37,0	9.92996	14,1	0.07004
.261	.21026	51,0	.28016	37,0	.93010	14,0	.06990
.262	.21077	51,0	.28053	37,0	.93024	14,0	.06976
.263	.21128	51,0	.28090	37,0	.93038	14,0	.06962
.264	.21179	51,0	.28127	37,0	.93052	14,0	.06948
1.265	0.21230	50,9	0.28164	37,0	9.93066	13,9	0.06934
.266	.21281	50,9	.28201	37,0	.93080	13,9	.06920
.267	.21332	50,9	.28238	37,0	.93094	13,9	.06906
.268	.21383	50,9	.28275	37,1	.93108	13,8	.06892
.269	.21434	50,9	.28312	37,1	.93122	13,8	.06878
1.270	0.21485	50,9	0.28349	37,1	9.93135	13,8	0.06865
.271	.21536	50,9	.28386	37,1	.93149	13,8	.06851
.272	.21586	50,8	.28423	37,1	.93163	13,7	.06837
.273	.21637	50,8	.28460	37,1	.93177	13,7	.06823
.274	.21688	50,8	.28498	37,1	.93190	13,7	.06810
1.275	0.21739	50,8	0.28535	37,1	9.93204	13,6	0.06796
.276	.21790	50,8	.28572	37,2	.93218	13,6	.06782
.277	.21840	50,8	.28609	37,2	.93231	13,6	.06769
.278	.21891	50,7	.28646	37,2	.93245	13,6	.06755
.279	.21942	50,7	.28683	37,2	.93258	13,5	.06742
1.280	0.21993	50,7	0.28721	37,2	9.93272	13,5	0.06728
.281	.22043	50,7	.28758	37,2	.93285	13,5	.06715
.282	.22094	50,7	.28795	37,2	.93299	13,5	.06701
.283	.22145	50,7	.28832	37,2	.93312	13,4	.06688
.284	.22195	50,6	.28869	37,2	.93326	13,4	.06674
1.285	0.22246	50,6	0.28907	37,3	9.93339	13,4	0.06661
.286	.22296	50,6	.28944	37,3	.93353	13,3	.06647
.287	.22347	50,6	.28981	37,3	.93366	13,3	.06634
.288	.22398	50,6	.29018	37,3	.93379	13,3	.06621
.289	.22448	50,6	.29056	37,3	.93392	13,3	.06608
1.290	0.22499	50,6	0.29093	37,3	9.93406	13,2	0.06594
.291	.22549	50,5	.29130	37,3	.93419	13,2	.06581
.292	.22600	50,5	.29168	37,3	.93432	13,2	.06568
.293	.22650	50,5	.29205	37,3	.93445	13,2	.06555
.294	.22701	50,5	.29242	37,4	.93458	13,1	.06542
1.295	0.22751	50,5	0.29280	37,4	9.93472	13,1	0.06528
.296	.22802	50,5	.29317	37,4	.93485	13,1	.06515
.297	.22852	50,4	.29355	37,4	.93498	13,1	.06502
.298	.22903	50,4	.29392	37,4	.93511	13,0	.06489
.299	.22953	50,4	.29429	37,4	.93524	13,0	.06476
1.300	0.23004	50,4	0.29467	37,4	9.93537	13,0	0.06463
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
1.300	0.23004	50,4	0.29467	37,4	9.93537	13,0	0.06463
.301	.23054	50,4	.29504	37,4	.93550	12,9	.06450
.302	.23104	50,4	.29542	37,4	.93563	12,9	.06437
.303	.23155	50,4	.29579	37,5	.93576	12,9	.06424
.304	.23205	50,3	.29617	37,5	.93588	12,9	.06412
1.305	0.23255	50,3	0.29654	37,5	9.93601	12,8	0.06399
.306	.23306	50,3	.29692	37,5	.93614	12,8	.06386
.307	.23356	50,3	.29729	37,5	.93627	12,8	.06373
.308	.23406	50,3	.29767	37,5	.93640	12,8	.06360
.309	.23457	50,3	.29804	37,5	.93652	12,7	.06348
1.310	0.23507	50,2	0.29842	37,5	9.93665	12,7	0.06335
.311	.23557	50,2	.29879	37,5	.93678	12,7	.06322
.312	.23607	50,2	.29917	37,6	.93691	12,7	.06309
.313	.23657	50,2	.29954	37,6	.93703	12,6	.06297
.314	.23708	50,2	.29992	37,6	.93716	12,6	.06284
1.315	0.23758	50,2	0.30029	37,6	9.93728	12,6	0.06272
.316	.23808	50,2	.30067	37,6	.93741	12,6	.06259
.317	.23858	50,1	.30105	37,6	.93754	12,5	.06246
.318	.23908	50,1	.30142	37,6	.93766	12,5	.06234
.319	.23958	50,1	.30180	37,6	.93779	12,5	.06221
1.320	0.24009	50,1	0.30217	37,6	9.93791	12,5	0.06209
.321	.24059	50,1	.30255	37,7	.93804	12,4	.06196
.322	.24109	50,1	.30293	37,7	.93816	12,4	.06184
.323	.24159	50,1	.30330	37,7	.93828	12,4	.06172
.324	.24209	50,0	.30368	37,7	.93841	12,4	.06159
1.325	0.24259	50,0	0.30406	37,7	9.93853	12,3	0.06147
.326	.24309	50,0	.30444	37,7	.93865	12,3	.06135
.327	.24359	50,0	.30481	37,7	.93878	12,3	.06122
.328	.24409	50,0	.30519	37,7	.93890	12,3	.06110
.329	.24459	50,0	.30557	37,7	.93902	12,2	.06098
1.330	0.24509	50,0	0.30594	37,8	9.93914	12,2	0.06086
.331	.24559	49,9	.30632	37,8	.93927	12,2	.06073
.332	.24609	49,9	.30670	37,8	.93939	12,2	.06061
.333	.24659	49,9	.30708	37,8	.93951	12,1	.06049
.334	.24709	49,9	.30746	37,8	.93963	12,1	.06037
1.335	0.24759	49,9	0.30783	37,8	9.93975	12,1	0.06025
.336	.24808	49,9	.30821	37,8	.93987	12,1	.06013
.337	.24858	49,9	.30859	37,8	.93999	12,0	.06001
.338	.24908	49,9	.30897	37,8	.94011	12,0	.05989
.339	.24958	49,8	.30935	37,8	.04023	12,0	.05977
1.340	0.25008	49,8	0.30972	37,9	9.94035	12,0	0.05965
.341	.25058	49,8	.31010	37,9	.94047	11,9	.05953
.342	.25107	49,8	.31048	37,9	.94059	11,9	.05941
.343	.25157	49,8	.31086	37,9	.94071	11,9	.05929
.344	.25207	49,8	.31124	37,9	.94083	11,9	.05917
1.345	0.25257	49,8	0.31162	37,9	9.94095	11,8	0.05905
.346	.25306	49,7	.31200	37,9	.94107	11,8	.05893
.347	.25356	49,7	.31238	37,9	.94119	11,8	.05881
.348	.25406	49,7	.31276	37,9	.94130	11,8	.05870
.349	.25456	49,7	.31314	37,9	.94142	11,8	.05858
1.350	0.25505	49,7	0.31352	38,0	9.94154	11,7	0.05846
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
1.350	0.25505	49,7	0.31352	38,0	9.94154	11,7	0.05846
.351	.25555	49,7	.31390	38,0	.94166	11,7	.05834
.352	.25605	49,7	.31428	38,0	.94177	11,7	.05823
.353	.25654	49,6	.31465	38,0	.94189	11,7	.05811
.354	.25704	49,6	.31503	38,0	.94201	11,6	.05799
1.355	0.25754	49,6	0.31541	38,0	9.94212	11,6	0.05788
.356	.25803	49,6	.31580	38,0	.94224	11,6	.05776
.357	.25853	49,6	.31618	38,0	.94235	11,6	.05765
.358	.25902	49,6	.31656	38,0	.94247	11,5	.05753
.359	.25952	49,6	.31694	38,1	.94258	11,5	.05742
1.360	0.26002	49,6	0.31732	38,1	9.94270	11,5	0.05730
.361	.26051	49,5	.31770	38,1	.94281	11,5	.05719
.362	.26101	49,5	.31808	38,1	.94293	11,4	.05707
.363	.26150	49,5	.31846	38,1	.94304	11,4	.05696
.364	.26200	49,5	.31884	38,1	.94316	11,4	.05684
1.365	0.26249	49,5	0.31922	38,1	9.94327	11,4	0.05673
.366	.26299	49,5	.31960	38,1	.94338	11,4	.05662
.367	.26348	49,5	.31998	38,1	.94350	11,3	.05650
.368	.26398	49,5	.32036	38,1	.94361	11,3	.05639
.369	.26447	49,4	.32075	38,2	.94372	11,3	.05628
1.370	0.26496	49,4	0.32113	38,2	9.94384	11,3	0.05616
.371	.26546	49,4	.32151	38,2	.94395	11,2	.05605
.372	.26595	49,4	.32189	38,2	.94406	11,2	.05594
.373	.26645	49,4	.32227	38,2	.94417	11,2	.05583
.374	.26694	49,4	.32266	38,2	.94429	11,2	.05571
1.375	0.26743	49,4	0.32304	38,2	9.94440	11,2	0.05560
.376	.26793	49,3	.32342	38,2	.94451	11,1	.05549
.377	.26842	49,3	.32380	38,2	.94462	11,1	.05538
.378	.26891	49,3	.32418	38,2	.94473	11,1	.05527
.379	.26941	49,3	.32457	38,2	.94484	11,1	.05516
1.380	0.26990	49,3	0.32495	38,3	9.94495	11,0	0.05505
.381	.27039	49,3	.32533	38,3	.94506	11,0	.05494
.382	.27089	49,3	.32571	38,3	.94517	11,0	.05483
.383	.27138	49,3	.32610	38,3	.94528	11,0	.05472
.384	.27187	49,2	.32648	38,3	.94539	11,0	.05461
1.385	0.27236	49,2	0.32686	38,3	9.94550	10,9	0.05450
.386	.27286	49,2	.32725	38,3	.94561	10,9	.05439
.387	.27335	49,2	.32763	38,3	.94572	10,9	.05428
.388	.27384	49,2	.32801	38,3	.94583	10,9	.05417
.389	.27433	49,2	.32840	38,3	.94594	10,8	.05406
1.390	0.27482	49,2	0.32878	38,4	9.94604	10,8	0.05396
.391	.27532	49,2	.32916	38,4	.94615	10,8	.05385
.392	.27581	49,2	.32955	38,4	.94626	10,8	.05374
.393	.27630	49,1	.32993	38,4	.94637	10,8	.05363
.394	.27679	49,1	.33031	38,4	.94648	10,7	.05352
1.395	0.27728	49,1	0.33070	38,4	9.94658	10,7	0.05342
.396	.27777	49,1	.33108	38,4	.94669	10,7	.05331
.397	.27826	49,1	.33147	38,4	.94680	10,7	.05320
.398	.27875	49,1	.33185	38,4	.94690	10,6	.05310
.399	.27925	49,1	.33224	38,4	.94701	10,6	.05299
1.400	0.27974	49,1	0.33262	38,5	9.94712	10,6	0.05288
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
1.400	0.27974	49,1	0.33262	38,5	9.94712	10,6	0.05288
.401	.28023	49,0	.33300	38,5	.94722	10,6	.05278
.402	.28072	49,0	.33339	38,5	.94733	10,6	.05267
.403	.28121	49,0	.33377	38,5	.94743	10,5	.05257
.404	.28170	49,0	.33416	38,5	.94754	10,5	.05246
1.405	0.28219	49,0	0.33454	38,5	9.94764	10,5	0.05236
.406	.28268	49,0	.33493	38,5	.94775	10,5	.05225
.407	.28317	49,0	.33531	38,5	.94785	10,5	.05215
.408	.28366	49,0	.33570	38,5	.94796	10,4	.05204
.409	.28415	48,9	.33608	38,5	.94806	10,4	.05194
1.410	0.28464	48,9	0.33647	38,5	9.94817	10,4	0.05183
.411	.28512	48,9	.33686	38,6	.94827	10,4	.05173
.412	.28561	48,9	.33724	38,6	.94837	10,3	.05163
.413	.28610	48,9	.33763	38,6	.94848	10,3	.05152
.414	.28659	48,9	.33801	38,6	.94858	10,3	.05142
1.415	0.28708	48,9	0.33840	38,6	9.94868	10,3	0.05132
.416	.28757	48,9	.33878	38,6	.94879	10,3	.05121
.417	.28806	48,9	.33917	38,6	.94889	10,2	.05111
.418	.28855	48,8	33956	38,6	.94899	10,2	.05101
.419	.28903	48,8	.33994	38,6	.94909	10,2	.05091
1.420	0.28952	48,8	0.34033	38,6	9.94919	10,2	0.05081
.421	.29001	48,8	.34071	38,6	.94930	10,2	.05070
.422	.29050	48,8	.34110	38,7	.94940	10,1	.05060
.423	.29099	48,8	.34149	38,7	.94950	10,1	.05050
.424	.29147	48,8	.34187	38,7	.94960	10,1	.05040
1.425	0.29196	48,8	0.34226	38,7	9.94970	10,1	0.05030
.426	.29245	48,8	.34265	38,7	.94980	10,1	.05020
.427	.29294	48,7	.34304	38,7	.94990	10,0	.05010
.428	.29342	48,7	.34342	38,7	.95000	10,0	.05000
.429	.29391	48,7	.34381	38,7	.95010	10,0	.04990
1.430	0.29440	48,7	0.34420	38,7	9.95020	10,0	0.04980
.431	.29489	48,7	.34458	38,7	.95030	10,0	.04970
.432	.29537	48,7	.34497	38,7	.95040	9,9	.04960
.433	.29586	48,7	.34536	38,8	.95050	9,9	.04950
.434	.29635	48,7	.34575	38,8	.95060	9,9	.04940
1.435	0.29683	48,7	0.34613	38,8	9.95070	9,9	0.04930
.436	.29732	48,6	.34652	38,8	.95080	9,9	.04920
.437	.29781	48,6	.34691	38,8	.95090	9,8	.04910
.438	.29829	48,6	.34730	38,8	.95099	9,8	.04901
.439	.29878	48,6	.34769	38,8	.95109	9,8	.04891
1.440	0.29926	48,6	0.34807	38,8	9.95119	9,8	0.04881
.441	.29975	48,6	.34846	38,8	.95129	9,8	.04871
.442	.30024	48,6	.34885	38,8	.95139	9,7	.04861
.443	.30072	48,6	.34924	38,8	.95148	9,7	.04852
.444	.30121	48,6	.34963	38,8	.95158	9,7	.04842
1.445	0.30169	48,5	0.35002	38,9	9.95168	9,7	0.04832
.446	.30218	48,5	.35040	38,9	.95177	9,7	.04823
.447	.30266	48,5	.35079	38,9	.95187	9,6	.04813
.448	.30315	48,5	.35118	38,9	.95197	9,6	.04803
.449	.30363	48,5	.35157	38,9	.95206	9,6	.04794
1.450	0.30412	48,5	0.35196	38,9	9.95216	9,6	0.04784
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
1.450	0.30412	48,5	0.35196	38,9	9.95216	9,6	0.04784
.451	.30460	48,5	.35235	38,9	.95225	9,6	.04775
.452	.30509	48,5	.35274	38,9	.95235	9,5	.04765
.453	.30557	48,5	.35313	38,9	.95245	9,5	.04755
.454	.30606	48,4	.35352	38,9	.95254	9,5	.04746
1.455	0.30654	48,4	0.35391	38,9	9.95264	9,5	0.04736
.456	.30703	48,4	.35429	39,0	.95273	9,5	.04727
.457	.30751	48,4	.35468	39,0	.95283	9,5	.04717
.458	.30799	48,4	.35507	39,0	.95292	9,4	.04708
.459	.30848	48,4	.35546	39,0	.95301	9,4	.04699
1.460	0.30896	48,4	0.35585	39,0	9.95311	9,4	0.04689
.461	.30945	48,4	.35624	39,0	.95320	9,4	.04680
.462	.30993	48,4	.35663	39,0	.95330	9,4	.04670
.463	.31041	48,3	.35702	39,0	.95339	9,3	.04661
.464	.31090	48,3	.35741	39,0	.95348	9,3	.04652
1.465	0.31138	48,3	0.35780	39,0	9.95358	9,3	0.04642
.466	.31186	48,3	.35819	39,0	.95367	9,3	.04633
.467	.31235	48,3	.35858	39,0	.95376	9,3	.04624
.468	.31283	48,3	.35897	39,1	.95385	9,2	.04615
.469	.31331	48,3	.35937	39,1	.95395	9,2	.04605
1.470	0.31379	48,3	0.35976	39,1	9.95404	9,2	0.04596
.471	.31428	48,3	.36015	39,1	.95413	9,2	.04587
.472	.31476	48,3	.36054	39,1	.95422	9,2	.04578
.473	.31524	48,2	.36093	39,1	.95431	9,2	.04569
.474	.31572	48,2	.36132	39,1	.95441	9,1	.04559
1.475	0.31621	48,2	0.36171	39,1	9.95450	9,1	0.04550
.476	.31669	48,2	.36210	39,1	.95459	9,1	.04541
.477	.31717	48,2	.36249	39,1	.95468	9,1	.04532
.478	.31765	48,2	.36288	39,1	.95477	9,1	.04523
.479	.31814	48,2	.36328	39,1	.95486	9,0	.04514
1.480	0.31862	48,2	0.36367	39,2	9.95495	9,0	0.04505
.481	.31910	48,2	.36406	39,2	.95504	9,0	.04496
.482	.31958	48,2	.36445	39,2	.95513	9,0	.04487
.483	.32006	48,1	.36484	39,2	.95522	9,0	.04478
.484	.32054	48,1	.36523	39,2	.95531	9,0	.04469
1.485	0.32102	48,1	0.36563	39,2	.95540	8,9	.04460
.486	.32151	48,1	.36602	39,2	.95549	8,9	.04451
.487	.32199	48,1	.36641	39,2	.95558	8,9	.04442
.488	.32247	48,1	.36680	39,2	.95567	8,9	.04433
.489	.32295	48,1	.36719	39,2	.95576	8,9	.04424
1.490	0.32343	48,1	0.36759	39,2	9.95584	8,8	0.04416
.491	.32391	48,1	.36798	39,2	.95593	8,8	.04407
.492	.32439	48,1	.36837	39,2	.95602	8,8	.04398
.493	.32487	48,0	.36876	39,3	.95611	8,8	.04389
.494	.32535	48,0	.36916	39,3	.95620	8,8	.04380
1.495	0.32583	48,0	0.36955	39,3	9.95628	8,8	0.04372
.496	.32631	48,0	.36994	39,3	.95637	8,7	.04363
.497	.32679	48,0	.37033	39,3	.95646	8,7	.04354
.498	.32727	48,0	.37073	39,3	.95655	8,7	.04345
.499	.32775	48,0	.37112	39,3	.95663	8,7	.04337
1.500	0.32823	48,0	0.37151	39,3	9.95672	8,7	0.04328
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
1.500	0.32823	48,0	0.37151	39,3	9.95672	8,7	0.04328
.501	.32871	48,0	.37191	39,3	.95681	8,7	.04319
.502	.32919	48,0	.37230	39,3	.95689	8,6	.04311
.503	.32967	48,0	.37269	39,3	.95698	8,6	.04302
.504	.33015	47,9	.37309	39,3	.95707	8,6	.04293
1.505	0.33063	47,9	0.37348	39,3	9.95715	8,6	0.04285
.506	.33111	47,9	.37387	39,4	.95724	8,6	.04276
.507	.33159	47,9	.37427	39,4	.95732	8,5	.04268
.508	.33207	47,9	.37466	39,4	.95741	8,5	.04259
.509	.33255	47,9	.37505	39,4	.95749	8,5	.04251
1.510	0.33303	47,9	0.37545	39,4	9.95758	8,5	0.04242
.511	.33350	47,9	.37584	39,4	.95766	8,5	.04234
.512	.33398	47,9	.37624	39,4	.95775	8,5	.04225
.513	.33446	47,9	.37663	39,4	.95783	8,4	.04217
.514	.33494	47,8	.37702	39,4	.95792	8,4	.04208
1.515	0.33542	47,8	0.37742	39,4	9.95800	8,4	0.04200
.516	.33590	47,8	.37781	39,4	.95808	8,4	.04192
.517	.33638	47,8	.37821	39,4	.95817	8,4	.04183
.518	.33685	47,8	.37860	39,4	.95825	8,4	.04175
.519	.33733	47,8	.37900	39,5	.95834	8,3	.04166
1.520	0.33781	47,8	0.37939	39,5	9.95842	8,3	0.04158
.521	.33829	47,8	.37979	39,5	.95850	8,3	.04150
.522	.33877	47,8	.38018	39,5	.95859	8,3	.04141
.523	.33924	47,8	.38057	39,5	.95867	8,3	.04133
.524	.33972	47,8	.38097	39,5	.95875	8,3	.04125
1.525	0.34020	47,7	0.38136	39,5	9.95883	8,2	0.04117
.526	.34068	47,7	.38176	39,5	.95892	8,2	.04108
.527	.34115	47,7	.38215	39,5	.95900	8,2	.04100
.528	.34163	47,7	.38255	39,5	.95908	8,2	.04092
.529	.34211	47,7	.38295	39,5	.95916	8,2	.04084
1.530	0.34258	47,7	0.38334	39,5	9.95924	8,2	0.04076
.531	.34306	47,7	.38374	39,5	.95933	8,1	.04067
.532	.34354	47,7	.38413	39,6	.95941	8,1	.04059
.533	.34402	47,7	.38453	39,6	.95949	8,1	.04051
.534	.34449	47,7	.38492	39,6	.95957	8,1	.04043
1.535	0.34497	47,7	0.38532	39,6	9.95965	8,1	0.04035
.536	.34545	47,6	.38571	39,6	.95973	8,1	.04027
.537	.34592	47,6	.38611	39,6	.95981	8,0	.04019
.538	.34640	47,6	.38651	39,6	.95989	8,0	.04011
.539	.34687	47,6	.38690	39,6	.95997	8,0	.04003
1.540	0.34735	47,6	0.38730	39,6	9.96005	8,0	0.03995
.541	.34783	47,6	.38769	39,6	.96013	8,0	.03987
.542	.34830	47,6	.38809	39,6	.96021	8,0	.03979
.543	.34878	47,6	.38849	39,6	.96029	8,0	.03971
.544	.34925	47,6	.38888	39,6	.96037	7,9	.03963
1.545	0.34973	47,6	0.38928	39,6	9.96045	7,9	0.03955
.546	.35021	47,6	.38968	39,7	.96053	7,9	.03947
.547	.35068	47,6	.39007	39,7	.96061	7,9	.03939
.548	.35116	47,5	.39047	39,7	.96069	7,9	.03931
.549	.35163	47,5	.39087	39,7	.96077	7,9	.03923
1.550	0.35211	47,5	0.39126	39,7	9.96084	7,8	0.03916
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
1.550	0.35211	47,5	0.39126	39,7	9.96084	7,8	0.03916
.551	.35258	47,5	.39166	39,7	.96092	7,8	.03908
.552	.35306	47,5	.39206	39,7	.96100	7,8	.03900
.553	.35353	47,5	.39245	39,7	.96108	7,8	.03892
.554	.35401	47,5	.39285	39,7	.96116	7,8	.03884
1.555	0.35448	47,5	0.39325	39,7	9.96123	7,8	0.03877
.556	.35496	47,5	.39365	39,7	.96131	7,7	.03869
.557	.35543	47,5	.39404	39,7	.96139	7,7	.03861
.558	.35591	47,5	.39444	39,7	.96147	7,7	.03853
.559	.35638	47,5	.39484	39,7	.96154	7,7	.03846
1.560	0.35686	47,4	0.39524	39,8	9.96162	7,7	0.03838
.561	.35733	47,4	.39563	39,8	.96170	7,7	.03830
.562	35780	47,4	.39603	39,8	.96177	7,7	.03823
.563	35828	47,4	.39643	39,8	.96185	7,6	.03815
.564	.35875	47,4	.39683	39,8	.96193	7,6	.03807
1.565	0.35923	47,4	0.39722	39,8	9.96200	7,6	0.03800
.566	.35970	47,4	.39762	39,8	.96208	7,6	.03792
.567	.36017	47,4	.39802	39,8	.96215	7,6	.03785
.568	.36065	47,4	.39842	39,8	.96223	7,6	.03777
.569	.36112	47,4	.39882	39,8	.96231	7,5	.03769
1.570	0.36160	47,4	0.39921	39,8	9.96238	7,5	0.03762
.571	.36207	47,4	.39961	39,8	.96246	7,5	.03754
.572	.36254	47,3	.40001	39,8	.96253	7,5	.03747
.573	.36302	47,3	.40041	39,8	.96261	7,5	.03739
.574	.36349	47,3	.40081	39,9	.96268	7,5	.03732
1.575	0.36396	47,3	0.40121	39,9	9.96276	7,5	0.03724
.576	.36444	47,3	.40161	39,9	.96283	7,4	.03717
.577	.36491	47,3	.40200	39,9	.96291	7,4	.03709
.578	.36538	47,3	.40240	39,9	.96298	7,4	.03702
.579	.36585	47,3	.40280	39,9	.96305	7,4	.03695
1.580	0.36633	47,3	0.40320	39,9	9.96313	7,4	0.03687
.581	.36680	47,3	.40360	39,9	.96320	7,4	.03680
.582	.36727	47,3	.40400	39,9	.96327	7,4	.03673
.583	.36775	47,3	.40440	39,9	.96335	7,3	.03665
.584	.36822	47,2	.40480	39,9	.96342	7,3	.03658
1.585	0.36869	47,2	0.40520	39,9	9.96349	7,3	0.03651
.586	.36916	47,2	.40560	39,9	.96357	7,3	.03643
.587	.36964	47,2	.40599	39,9	.96364	7,3	.03636
.588	.37011	47,2	.40639	39,9	.96371	7,3	.03629
.589	.37058	47,2	.40679	40,0	.96379	7,3	.03621
1.590	0.37105	47,2	0.40719	40,0	9.96386	7,2	0.03614
.591	.37152	47,2	.40759	40,0	.96393	7,2	.03607
.592	.37200	47,2	.40799	40,0	.96400	7,2	.03600
.593	.37247	47,2	.40839	40,0	.96407	7,2	.03593
.594	.37294	47,2	.40879	40,0	.96415	7,2	.03585
1.595	0.37341	47,2	0.40919	40,0	9.96422	7,2	0.03578
.596	.37388	47,2	.40959	40,0	.96429	7,2	.03571
.597	.37435	47,1	.40999	40,0	.96436	7,1	.03564
.598	.37482	47,1	.41039	40,0	.96443	7,1	.03557
.599	.37530	47,1	.41079	40,0	.96450	7,1	.03550
1.600	0.37577	47,1	0.41119	40,0	9.96457	7,1	0.03543
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
1.600	0.37577	47,1	0.41119	40,0	9.96457	7,1	0.03543
.601	.37624		.41159		.96465		.03535
.602	.37671		.41199		.96472		.03528
.603	.37718		.41239		.96479		.03521
.604	.37765		.41279	40,1	.96486	7,0	.03514
1.605	0.37812	47,1	0.41319	40,1	9.96493	7,0	0.03507
.606	.37859		.41360		.96500		.03500
.607	.37906		.41400		.96507		.03493
.608	.37953		.41440		.96514		.03486
.609	.38001		.41480		.96521		.03479
1.610	0.38048	47,0	0.41520	40,1	9.96528	7,0	0.03472
.611	.38095		.41560		.96535	6,9	.03465
.612	.38142		.41600		.96542		.03458
.613	.38189		.41640		.96548		.03452
.614	.38236		.41680		.96555		.03445
1.615	0.38283	47,0	0.41720	40,1	9.96562	6,9	0.03438
.616	.38330		.41761		.96569		.03431
.617	.38377		.41801		.96576		.03424
.618	.38424		.41841		.96583	6,8	.03417
.619	.38471		.41881		.96590		.03410
1.620	0.38518	47,0	0.41921	40,2	9.96597	6,8	0.03403
.621	.38565		.41961		.96603		.03397
.622	.38612		.42001		.96610		.03390
.623	.38659	46,9	.42042		.96617		.03383
.624	.38705		.42082		.96624		.03376
1.625	0.38752	46,9	0.42122	40,2	9.96630	6,7	0.03370
.626	.38799		.42162		.96637		.03363
.627	.38846		.42202		.96644		.03356
.628	.38893		.42243		.96651		.03349
.629	.38940		.42283		.96657		.03343
1.630	0.38987	46,9	0.42323	40,2	9.96664	6,7	0.03336
.631	.39034		.42363		.96671		.03329
.632	.39081		.42403		.96677		.03323
.633	.39128		.42444		.96684	6,6	.03316
.634	.39175		.42484		.96691		.03309
1.635	0.39221	46,9	0.42524	40,2	9.96697	6,6	0.03303
.636	.39268		.42564	40,3	.96704		.03296
.637	.39315	46,8	.42605		.96710		.03290
.638	.39362		.42645		.96717		.03283
.639	.39409		.42685		.96724		.03276
1.640	0.39456	46,8	0.42725	40,3	9.96730	6,5	0.03270
.641	.39502		.42766		.96737		.03263
.642	.39549		.42806		.96743		.03257
.643	.39596		.42846		.96750		.03250
.644	.39643		.42887		.96756		.03244
1.645	0.39690	46,8	0.42927	40,3	9.96763	6,5	0.03237
.646	.39736		.42967		.96769		.03231
.647	.39783		.43008		.96776		.03224
.648	.39830		.43048		.96782	6,4	.03218
.649	.39877		.43088		.96788		.03212
1.650	0.39923	46,8	0.43129	40,3	9.96795	6,4	0.03205
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
1.650	0.39923	46,8	0.43129	40,3	9.96795	6,4	0.03205
.651	.39970	46,7	.43169		.96801		.03199
.652	.40017		.43209	40,4	.96808		.03192
.653	.40064		.43250		.96814		.03186
.654	.40110		.43290		.96820		.03180
1.655	0.40157	46,7	0.43330	40,4	9.96827	6,4	0.03173
.656	.40204		.43371		.96833	6,3	.03167
.657	.40251		.43411		.96840		.03160
.658	.40297		.43451		.96846		.03154
.659	.40344		.43492		.96852		.03148
1.660	0.40391	46,7	0.43532	40,4	9.96858	6,3	0.03142
.661	.40437		.43573		.96865		.03135
.662	.40484		.43613		.96871		.03129
.663	.40531		.43653		.96877		.03123
.664	.40577		.43694		.96883	6,2	.03117
1.665	0.40624	46,7	0.43734	40,4	9.96890	6,2	0.03110
.666	.40671	46,6	.43775		.96896		.03104
.667	.40717		.43815		.96902		.03098
.668	.40764		.43856		.96908		.03092
.669	.40811		.43896	40,5	.96915		.03085
1.670	0.40857	46,6	0.43937	40,5	9.96921	6,2	0.03079
.671	.40904		.43977		.96927		.03073
.672	.40950		.44017		.96933	6,1	.03067
.673	.40997		.44058		.96939		.03061
.674	.41044		.44098		.96945		.03055
1.675	0.41090	46,6	0.44139	40,5	9.96951	6,1	0.03049
.676	.41137		.44179		.96957		.03043
.677	.41183		.44220		.96964		.03036
.678	.41230		.44260		.96970		.03030
.679	.41277		.44301		.96976		.03024
1.680	0.41323	46,6	0.44341	40,5	9.96982	6,0	0.03018
.681	.41370	46,5	.44382		.96988		.03012
.682	.41416		.44422		.96994		.03006
.683	.41463		.44463		.97000		.03000
.684	.41509		.44503		.97006		.02994
1.685	0.41556	46,5	0.44544	40,5	9.97012	6,0	0.02988
.686	.41602		.44585		.97018		.02982
.687	.41649		.44625	40,6	.97024		.02976
.688	.41695		.44666		.97030	5,9	.02970
.689	.41742		.44706		.97036		.02964
1.690	0.41788	46,5	0.44747	40,6	9.97042	5,9	0.02958
.691	.41835		.44787		.97047		.02953
.692	.41881		.44828		.97053		.02947
.693	.41928		.44869		.97059		.02941
.694	.41974		.44909		.97065		.02935
1.695	0.42021	46,5	0.44950	40,6	9.97071	5,9	0.02929
.696	.42067		.44990		.97077		.02923
.697	.42114	46,4	.45031		.97083	5,8	.02917
.698	.42160		.45072		.97089		.02911
.699	.42207		.45112		.97094		.02906
1.700	0.42253	46,4	0.45153	40,6	9.97100	5,8	0.02900
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
1.700	0.42253	46,4	0.45153	40,6	9.97100	5,8	0.02900
.701	.42299		.45193		.97106		.02894
.702	.42346		.45234		.97112		.02888
.703	.42392		.45275		.97118		.02882
.704	.42439		.45315		.97123		.02877
1.705	0.42485	46,4	0.45356	40,7	9.97129	5,7	0.02871
.706	.42531		.45397		.97135		.02865
.707	.42578		.45437		.97141		.02859
.708	.42624		.45478		.97146		.02854
.709	.42671		.45519		.97152		.02848
1.710	0.42717	46,4	0.45559	40,7	9.97158	5,7	0.02842
.711	.42763		.45600		.97163		.02837
.712	.42810		.45641		.97169		.02831
.713	.42856	46,3	.45681		.97175		.02825
.714	.42902		.45722		.97180	5,6	.02820
1.715	0.42949	46,3	0.45763	40,7	9.97186	5,6	0.02814
.716	.42995		.45803		.97192		.02808
.717	.43041		.45844		.97197		.02803
.718	.43088		.45885		.97203		.02797
.719	.43134		.45925		.97208		.02792
1.720	0.43180	46,3	0.45966	40,7	9.97214	5,6	0.02786
.721	.43227		.46007		.97220		.02780
.722	.43273		.46048		.97225		.02775
.723	.43319		.46089		.97231	5,5	.02769
.724	.43365		.46129	40,8	.97236		.02764
1.725	0.43412	46,3	0.46170	40,8	9.97242	5,5	0.02758
.726	.43458		.46211		.97247		.02753
.727	.43504		.46252		.97253		.02747
.728	.43551		.46292		.97258		.02742
.729	.43597		.46333		.97264		.02736
1.730	0.43643	46,2	0.46374	40,8	9.97269	5,5	0.02731
.731	.43689		.46415		.97275		.02725
.732	.43736		.46455		.97280	5,4	.02720
.733	.43782		.46496		.97285		.02715
.734	.43828		.46537		.97291		.02709
1.735	0.43874	46,2	0.46578	40,8	9.97296	5,4	0.02704
.736	.43920		.46619		.97302		.02698
.737	.43967		.46660		.97307		.02693
.738	.44013		.46700		.97313		.02687
.739	.44059		.46741		.97318		.02682
1.740	0.44105	46,2	0.46782	40,8	9.97323	5,4	0.02677
.741	.44151		.46823		.97329	5,3	.02671
.742	.44198		.46864		.97334		.02666
.743	.44244		.46905		.97339		.02661
.744	.44290		.46945	40,9	.97345		.02655
1.745	0.44336	46,2	0.46986	40,9	9.97350	5,3	0.02650
.746	.44382		.47027		.97355		.02645
.747	.44428		.47068		.97360		.02640
.748	.44475	46,1	.47109		.97366		.02634
.749	.44521		.47150		.97371		.02629
1.750	0.44567	46,1	0.47191	40,9	9.97376	5,3	0.02624
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
1.750	0.44567	46,1	0.47191	40,9	9.97376	5,3	0.02624
.751	.44613		.47231		.97382	5,2	.02618
.752	.44659		.47272		.97387		.02613
.753	.44705		.47313		.97392		.02608
.754	.44751		.47354		.97397		.02603
1.755	0.44797	46,1	0.47395	40,9	9.97402	5,2	0.02598
.756	.44844		.47436		.97408		.02592
.757	.44890		.47477		.97413		.02587
.758	.44936		.47518		.97418		.02582
.759	.44982		.47559		.97423		.02577
1.760	0.45028	46,1	0.47600	40,9	9.97428	5,1	0.02572
.761	.45074		.47641		.97433		.02567
.762	.45120		.47682		.97439		.02561
.763	.45166		.47722		.97444		.02556
.764	.45212		.47763	41,0	.97449		.02551
1.765	0.45258	46,1	0.47804	41,0	9.97454	5,1	0.02546
.766	.45304	46,0	.47845		.97459		.02541
.767	.45350		.47886		.97464		.02536
.768	.45396		.47927		.97469		.02531
.769	.45442		.47968		.97474		.02526
1.770	0.45488	46,0	0.48009	41,0	9.97479	5,0	0.02521
.771	.45534		.48050		.97484		.02516
.772	.45580		.48091		.97489		.02511
.773	.45627		.48132		.97494		.02506
.774	.45673		.48173		.97499		.02501
1.775	0.45719	46,0	0.48214	41,0	9.97504	5,0	0.02496
.776	.45765		.48255		.97509		.02491
.777	.45810		.48296		.97514		.02486
.778	.45856		.48337		.97519		.02481
.779	.45902		.48378		.97524		.02476
1.780	0.45948	46,0	0.48419	41,0	9.97529	4,9	0.02471
.781	.45994		.48460		.97534		.02466
.782	.46040		.48501		.97539		.02461
.783	.46086		.48542		.97544		.02456
.784	.46132		.48583		.97549		.02451
1.785	0.46178	45,9	0.48624	41,1	9.97554	4,9	0.02446
.786	.46224		.48666		.97559		.02441
.787	.46270		.48707		.97564		.02436
.788	.46316		.48748		.97568		.02432
.789	.46362		.48789		.97573		.02427
1.790	0.46408	45,9	0.48830	41,1	9.97578	4,8	0.02422
.791	.46454		.48871		.97583		.02417
.792	.46500		.48912		.97588		.02412
.793	.46546		.48953		.97593		.02407
.794	.46592		.48994		.97597		.02403
1.795	0.46637	45,9	0.49035	41,1	9.97602	4,8	0.02398
.796	.46683		.49076		.97607		.02393
.797	.46729		.49117		.97612		.02388
.798	.46775		.49159		.97617		.02383
.799	.46821		.49200		.97621		.02379
1.800	0.46867	45,9	0.49241	41,1	9.97626	4,8	0.02374
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
1.800	0.46867	45,9	0.49241	41,1	9.97626	4,8	0.02374
.801	.46913		.49282		.97631	4,7	.02369
.802	.46959		.49323		.97636		.02364
.803	.47004		.49364		.97640		.02360
.804	.47050	45,8	.49405		.97645		.02355
1.805	0.47096	45,8	0.49446	41,1	9.97650	4,7	0.02350
.806	.47142		.49488		.97654		.02346
.807	.47188		.49529	41,2	.97659		.02341
.808	.47234		.49570		.97664		.02336
.809	.47279		.49611		.97668		.02332
1.810	0.47325	45,8	0.49652	41,2	9.97673	4,7	0.02327
.811	.47371		.49693		.97678	4,6	.02322
.812	.47417		.49734		.97682		.02318
.813	.47463		.49776		.97687		.02313
.814	.47509		.49817		.97692		.02308
1.815	0.47554	45,8	0.49858	41,2	9.97696	4,6	0.02304
.816	.47600		.49899		.97701		.02299
.817	.47646		.49940		.97705		.02295
.818	.47692		.49982		.97710		.02290
.819	.47737		.50023		.97715		.02285
1.820	0.47783	45,8	0.50064	41,2	9.97719	4,6	0.02281
.821	.47829		.50105		.97724		.02276
.822	.47875		.50146		.97728	4,5	.02272
.823	.47921		.50188		.97733		.02267
.824	.47966		.50229		.97737		.02263
1.825	0.48012	45,7	0.50270	41,2	9.97742	4,5	0.02258
.826	.48058		.50311		.97746		.02254
.827	.48104		.50353		.97751		.02249
.828	.48149		.50394		.97755		.02245
.829	.48195		.50435		.97760		.02240
1.830	0.48241	45,7	0.50476	41,3	9.97764	4,5	0.02236
.831	.48286		.50518		.97769		.02231
.832	.48332		.50559		.97773		.02227
.833	.48378		.50600		.97778	4,4	.02222
.834	.48424		.50641		.97782		.02218
1.835	0.48469	45,7	0.50683	41,3	9.97787	4,4	0.02213
.836	.48515		.50724		.97791		.02209
.837	.48561		.50765		.97796		.02204
.838	.48606		.50806		.97800		.02200
.839	.48652		.50848		.97804		.02196
1.840	0.48698	45,7	0.50889	41,3	9.97809	4,4	0.02191
.841	.48743		.50930		.97813		.02187
.842	.48789		.50972		.97817		.02183
.843	.48835		.51013		.97822		.02178
.844	.48880		.51054		.97826	4,3	.02174
1.845	0.48926	45,7	0.51096	41,3	9.97831	4,3	0.02169
.846	.48972	45,6	.51137		.97835		.02165
.847	.49017		.51178		.97839		.02161
.848	.49063		.51219		.97843		.02157
.849	.49109		.51261		.97848		.02152
1.850	0.49154	45,6	0.51302	41,3	9.97852	4,3	0.02148
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	$\omega\ F_0'$	log cosh u	$\omega\ F_0'$	log tanh u	$\omega\ F_0'$	log coth u
1.850	0.49154	45,6	0.51302	41,3	9.97852	4,3	0.02148
.851	.49200		.51343		.97856		.02144
.852	.49246		.51385		.97861		.02139
.853	.49291		.51426		.97865		.02135
.854	.49337		.51468	41,4	.97869		.02131
1.855	0.49382	45,6	0.51509	41,4	9.97873	4,3	0.02127
.856	.49428		.51550		.97878	4,2	.02122
.857	.49474		.51592		.97882		.02118
.858	.49519		.51633		.97886		.02114
.859	.49565		.51674		.97890		.02110
1.860	0.49610	45,6	0.51716	41,4	9.97895	4,2	0.02105
.861	.49656		.51757		.97899		.02101
.862	.49702		.51798		.97903		.02097
.863	.49747		.51840		.97907		.02093
.864	.49793		.51881		.97911		.02089
1.865	0.49838	45,6	0.51923	41,4	9.97916	4,2	0.02084
.866	.49884		.51964		.97920		.02080
.867	.49929		.52005		.97924		.02076
.868	.49975		.52047		.97928	4,1	.02072
.869	.50020	45,5	.52088		.97932		.02068
1.870	0.50066	45,5	0.52130	41,4	9.97936	4,1	0.02064
.871	.50112		.52171		.97940		.02060
.872	.50157		.52212		.97945		.02055
.873	.50203		.52254		.97949		.02051
.874	.50248		.52295		.97953		.02047
1.875	0.50294	45,5	0.52337	41,4	9.97957	4,1	0.02043
.876	.50339		.52378		.97961		.02039
.877	.50385		.52420		.97965		.02035
.878	.50430		.52461		.97969		.02031
.879	.50476		.52503		.97973		.02027
1.880	0.50521	45,5	0.52544	41,5	9.97977	4,0	0.02023
.881	.50567		.52585		.97981		.02019
.882	.50612		.52627		.97985		.02015
.883	.50658		.52668		.97989		.02011
.884	.50703		.52710		.97993		.02007
1.885	0.50749	45,5	0.52751	41,5	9.97997	4,0	0.02003
.886	.50794		.52793		.98001		.01999
.887	.50840		.52834		.98005		.01995
.888	.50885		.52876		.98009		.01991
.889	.50931		.52917		.98013		.01987
1.890	0.50976	45,5	0.52959	41,5	9.98017	4,0	0.01983
.891	.51021		.53000		.98021		.01979
.892	.51067	45,4	.53042		.98025		.01975
.893	.51112		.53083		.98029	3,9	.01971
.894	.51158		.53125		.98033		.01967
1.895	0.51203	45,4	0.53166	41,5	9.98037	3,9	0.01963
.896	.51249		.53208		.98041		.01959
.897	.51294		.53249		.98045		.01955
.898	.51340		.53291		.98049		.01951
.899	.51385		.53332		.98053		.01947
1.900	0.51430	45,4	0.53374	41,5	9.98057	3,9	0.01943
u	log tan gd u	$\omega\ F_0'$	log sec gd u	$\omega\ F_0'$	log sin gd u	$\omega\ F_0'$	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
1.900	0.51430	45,4	0.53374	41,5	9.98057	3,9	0.01943
.901	.51476		.53415		.98060		.01940
.902	.51521		.53457		.98064		.01936
.903	.51567		.53498		.98068		.01932
.904	.51612		.53540		.98072		.01928
1.905	0.51657	45,4	0.53581	41,5	9.98076	3,8	0.01924
.906	.51703		.53623	41,6	.98080		.01920
.907	.51748		.53665		.98084		.01916
.908	.51794		.53706		.98087		.01913
.909	.51839		.53748		.98091		.01909
1.910	0.51884	45,4	0.53789	41,6	9.98095	3,8	0.01905
.911	.51930		.53831		.98099		.01901
.912	.51975		.53872		.98103		.01897
.913	.52020		.53914		.98106		.01894
.914	.52066		.53956		.98110		.01890
1.915	0.52111	45,4	0.53997	41,6	9.98114	3,8	0.01886
.916	.52157		.54039		.98118		.01882
.917	.52202	45,3	.54080		.98122		.01878
.918	.52247		.54122		.98125		.01875
.919	.52293		.54164		.98129	3,7	.01871
1.920	0.52338	45,3	0.54205	41,6	9.98133	3,7	0.01867
.921	.52383		.54247		.98137		.01863
.922	.52429		.54288		.98140		.01860
.923	.52474		.54330		.98144		.01856
.924	.52519		.54372		.98148		.01852
1.925	0.52565	45,3	0.54413	41,6	9.98151	3,7	0.01849
.926	.52610		.54455		.98155		.01845
.927	.52655		.54496		.98159		.01841
.928	.52700		.54538		.98162		.01838
.929	.52746		.54580		.98166		.01834
1.930	0.52791	45,3	0.54621	41,6	9.98170	3,7	0.01830
.931	.52836		.54663		.98173		.01827
.932	.52882		.54705		.98177	3,6	.01823
.933	.52927		.54746		.98181		.01819
.934	.52972		.54788	41,7	.98184		.01816
1.935	0.53018	45,3	0.54830	41,7	9.98188	3,6	0.01812
.936	.53063		.54871		.98192		.01808
.937	.53108		.54913		.98195		.01805
.938	.53153		.54955		.98199		.01801
.939	.53199		.54996		.98202		.01798
1.940	0.53244	45,3	0.55038	41,7	9.98206	3,6	0.01794
.941	.53289		.55080		.98210		.01790
.942	.53334		.55121		.98213		.01787
.943	.53380	45,2	.55163		.98217		.01783
.944	.53425		.55205		.98220		.01780
1.945	0.53470	45,2	0.55246	41,7	9.98224	3,6	0.01776
.946	.53515		.55288		.98227	3,5	.01773
.947	.53561		.55330		.98231		.01769
.948	.53606		.55371		.98235		.01765
.949	.53651		.55413		.98238		.01762
1.950	0.53696	45,2	0.55455	41,7	9.98242	3,5	0.01758
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	$\omega F_0'$	log cosh u	$\omega F_0'$	log tanh u	$\omega F_0'$	log coth u
1.950	0.53696	45,2	0.55455	41,7	9.98242	3,5	0.01758
.951	.53742		.55496		.98245		.01755
.952	.53787		.55538		.98249		.01751
.953	.53832		.55580		.98252		.01748
.954	.53877		.55622		.98256		.01744
1.955	0.53922	45,2	0.55663	41,7	9.98259	3,5	0.01741
.956	.53968		.55705		.98263		.01737
.957	.54013		.55747		.98266		.01734
.958	.54058		.55788		.98269		.01731
.959	.54103		.55830		.98273		.01727
1.960	0.54148	45,2	0.55872	41,7	9.98276	3,4	0.01724
.961	.54194		.55914		.98280		.01720
.962	.54239		.55955		.98283		.01717
.963	.54284		.55997		.98287		.01713
.964	.54329		.56039	41,8	.98290		.01710
1.965	0.54374	45,2	0.56081	41,8	9.98294	3,4	0.01706
.966	.54419		.56122		.98297		.01703
.967	.54465		.56164		.98300		.01700
.968	.54510		.56206		.98304		.01696
.969	.54555		.56248		.98307		.01693
1.970	0.54600	45,2	0.56290	41,8	9.98311	3,4	0.01689
.971	.54645	45,1	.56331		.98314		.01686
.972	.54690		.56373		.98317		.01683
.973	.54736		.56415		.98321		.01679
.974	.54781		.56457		.98324		.01676
1.975	0.54826	45,1	0.56498	41,8	9.98327	3,3	0.01673
.976	.54871		.56540		.98331		.01669
.977	.54916		.56582		.98334		.01666
.978	.54961		.56624		.98337		.01663
.979	.55006		.56666		.98341		.01659
1.980	0.55051	45,1	0.56707	41,8	9.98344	3,3	0.01656
.981	.55097		.56749		.98347		.01653
.982	.55142		.56791		.98351		.01649
.983	.55187		.56833		.98354		.01646
.984	.55232		.56875		.98357		.01643
1.985	0.55277	45,1	0.56916	41,8	9.98360	3,3	0.01640
.986	.55322		.56958		.98364		.01636
.987	.55367		.57000		.98367		.01633
.988	.55412		.57042		.98370		.01630
.989	.55457		.57084		.98374		.01626
1.990	0.55502	45,1	0.57126	41,8	9.98377	3,2	0.01623
.991	.55547		.57167		.98380		.01620
.992	.55593		.57209		.98383		.01617
.993	.55638		.57251		.98387		.01613
.994	.55683		.57293		.98390		.01610
1.995	0.55728	45,1	0.57335	41,9	9.98393	3,2	0.01607
.996	.55773		.57377		.98396		.01604
.997	.55818		.57419		.98399		.01601
.998	.55863		.57460		.98403		.01597
.999	.55908		.57502		.98406		.01594
2.000	0.55953	45,0	0.57544	41,9	9.98409	3,2	0.01591
u	log tan gd u	$\omega F_0'$	log sec gd u	$\omega F_0'$	log sin gd u	$\omega F_0'$	log csc gd u

Logarithms of Hyperbolic Functions.

u	log sinh u	$\omega F_0'$	log cosh u	$\omega F_0'$	log tanh u	$\omega F_0'$	log coth u
2.000	0.55953	45,0	0.57544	41,9	9.98409	3,2	0.01591
.001	.55998		.57586		.98412		.01588
.002	.56043		.57628		.98415		.01585
.003	.56088		.57670		.98418		.01582
.004	.56133		.57712		.98422		.01578
2.005	0.56178	45,0	0.57754	41,9	9.98425	3,2	0.01575
.006	.56223		.57795		.98428	3,1	.01572
.007	.56268		.57837		.98431		.01569
.008	.56313		.57879		.98434		.01566
.009	.56358		.57921		.98437		.01563
2.010	0.56403	45,0	0.57963	41,9	9.98440	3,1	0.01560
.011	.56448		.58005		.98444		.01556
.012	.56493		.58047		.98447		.01553
.013	.56538		.58089		.98450		.01550
.014	.56583		.58131		.98453		.01547
2.015	0.56628	45,0	0.58172	41,9	9.98456	3,1	0.01544
.016	.56673		.58214		.98459		.01541
.017	.56718		.58256		.98462		.01538
.018	.56723		.58298		.98465		.01535
.019	.56808		.58340		.98468		.01532
2.020	0.56853	45,0	0.58382	41,9	9.98471	3,1	0.01529
.021	.56898		.58424		.98474		.01526
.022	.56943		.58466		.98477	3,0	.01523
.023	.56988		.58508		.98480		.01520
.024	.57033		.58550		.98484		.01516
2.025	0.57078	45,0	0.58592	41,9	9.98487	3,0	0.01513
.026	.57123		.58634		.98490		.01510
.027	.57168		.58676		.98493		.01507
.028	.57213		.58718	42,0	.98496		.01504
.029	.57258		.58760		.98499		.01501
2.030	0.57303	45,0	0.58802	42,0	9.98502	3,0	0.01498
.031	.57348		.58843		.98505		.01495
.032	.57393	44,9	.58885		.98508		.01492
.033	.57438		.58927		.98511		.01489
.034	.57483		.58969		.98514		.01485
2.035	0.57528	44,9	0.59011	42,0	9.98517	3,0	0.01483
.036	.57573		.59053		.98519		.01481
.037	.57618		.59095		.98522		.01478
.038	.57663		.59137		.98525	2,9	.01475
.039	.57708		.59179		.98528		.01472
2.040	0.57753	44,9	0.59221	42,0	9.98531	2,9	0.01469
.041	.57797		.59263		.98534		.01466
.042	.57842		.59305		.98537		.01463
.043	.57887		.59347		.98540		.01460
.044	.57932		.59389		.98543		.01457
2.045	0.57977	44,9	0.59431	42,0	9.98546	2,9	0.01454
.046	.58022		.59473		.98549		.01451
.047	.58067		.59515		.98552		.01448
.048	.58112		.59557		.98555		.01445
.049	.58157		.59599		.98558		.01442
2.050	0.58202	44,9	0.59641	42,0	9.98560	2,9	0.01440
u	log tan gd u	$\omega F_0'$	log sec gd u	$\omega F_0'$	log sin gd u	$\omega F_0'$	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
2.050	0.58202	44,9	0.59641	42,0	9.98560	2,9	0.01440
.051	.58246		.59683		.98563		.01437
.052	.58291		.59725		.98566		.01434
.053	.58336		.59767		.98569		.01431
.054	.58381		.59809		.98572		.01428
2.055	0.58426	44,9	0.59851	42,0	9.98575	2,9	0.01425
.056	.58471		.59893		.98578	2,8	.01422
.057	.58516		.59935		.98580		.01420
.058	.58561		.59977		.98583		.01417
.059	.58606		.60019		.98586		.01414
2.060	0.58650	44,9	0.60061	42,0	9.98589	2,8	0.01411
.061	.58695		.60104		.98592		.01408
.062	.58740		.60146		.98595		.01405
.063	.58785		.60188		.98597		.01403
.064	.58830		.60230	42,1	.98600		.01400
2.065	0.58875	44,8	0.60272	42,1	9.98603	2,8	0.01397
.066	.58920		.60314		.98606		.01394
.067	.58964		.60356		.98609		.01391
.068	.59009		.60398		.98611		.01389
.069	.59054		.60440		.98614		.01386
2.070	0.59099	44,8	0.60482	42,1	9.98617	2,8	0.01383
.071	.59144		.60524		.98620		.01380
.072	.59189		.60566		.98622		.01378
.073	.59233		.60608		.98625		.01375
.074	.59278		.60650		.98628	2,7	.01372
2.075	0.59323	44,8	0.60692	42,1	9.98631	2,7	0.01369
.076	.59368		.60734		.98633		.01367
.077	.59413		.60777		.98636		.01364
.078	.59457		.60819		.98639		.01361
.079	.59502		.60861		.98642		.01358
2.080	0.59547	44,8	0.60903	42,1	9.98644	2,7	0.01356
.081	.59592		.60945		.98647		.01353
.082	.59637		.60987		.98650		.01350
.083	.59681		.61029		.98652		.01348
.084	.59726		.61071		.98655		.01345
2.085	0.59771	44,8	0.61113	42,1	9.98658	2,7	0.01342
.086	.59816		.61155		.98660		.01340
.087	.59861		.61198		.98663		.01337
.088	.59905		.61240		.98666		.01334
.089	.59950		.61282		.98668		.01332
2.090	0.59995	44,8	0.61324	42,1	9.98671	2,7	0.01329
.091	.60040		.61366		.98674		.01326
.092	.60085		.61408		.98676	2,6	.01324
.093	.60129		.61450		.98679		.01321
.094	.60174		.61492		.98682		.01318
2.095	0.60219	44,8	0.61535	42,1	9.98684	2,6	0.01316
.096	.60264		.61577		.98587		.01313
.097	.60308		.61619		.98690		.01310
.098	.60353		.61661		.98692		.01308
.099	.60398		.61703		.98695		.01305
2.100	0.60443	44,8	0.61745	42,1	9.98697	2,6	0.01303
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
2.100	0.60443	44,8	0.61745	42,1	9.98697	2,6	0.01303
.101	.60487	44,7	.61787		.98700		.01300
.102	.60532		.61830	42,2	.98703		.01297
.103	.60577		.61872		.98705		.01295
.104	.60622		.61914		.98708		.01292
2.105	0.60666	44,7	0.61956	42,2	9.98710	2,6	0.01290
.106	.60711		.61998		.98713		.01287
.107	.60756		.62040		.98716		.01284
.108	.60801		.62083		.98718		.01282
.109	.60845		.62125		.98721		.01279
2.110	0.60890	44,7	0.62167	42,2	9.98723	2,6	0.01277
.111	.60935		.62209		.98726	2,5	.01274
.112	.60979		.62251		.98728		.01272
.113	.61024		.62293		.98731		.01269
.114	.61069		.62336		.98733		.01267
2.115	0.61114	44,7	0.62378	42,2	9.98736	2,5	0.01264
.116	.61158		.62420		.98738		.01262
.117	.61203		.62462		.98741		.01259
.118	.61248		.62504		.98743		.01257
.119	.61292		.62546		.98746		.01254
2.120	0.61337	44,7	0.62589	42,2	9.98748	2,5	0.01252
.121	.61382		.62631		.98751		.01249
.122	.61427		.62673		.98753		.01247
.123	.61471		.62715		.98756		.01244
.124	.61516		.62757		.98758		.01242
2.125	0.61561	44,7	0.62800	42,2	9.98761	2,5	0.01239
.126	.61605		.62842		.98763		.01237
.127	.61650		.62884		.98766		.01234
.128	.61695		.62926		.98768		.01232
.129	.61739		.62969		.98771		.01229
2.130	0.61784	44,7	0.63011	42,2	9.98773	2,5	0.01227
.131	.61829		.63053		.98776	2,4	.01224
.132	.61873		.63095		.98778		.01222
.133	.61918		.63137		.98781		.01219
.134	.61963		.63180		.98783		.01217
2.135	0.62007	44,7	0.63222	42,2	9.98785	2,4	0.01215
.136	.62052		.63264		.98788		.01212
.137	.62097		.63306		.98790		.01210
.138	.62141		.63349		.98793		.01207
.139	.62186		.63391		.98795		.01205
2.140	0.62231	44,6	0.63433	42,2	9.98798	2,4	0.01202
.141	.62275		.63475		.98800		.01200
.142	.62320		.63518		.98802		.01198
.143	.62365		.63560	42,3	.98805		.01195
.144	.62409		.63602		.98807		.01193
2.145	0.62454	44,6	0.63644	42,3	9.98810	2,4	0.01190
.146	.62498		.63687		.98812		.01188
.147	.62543		.63729		.98814		.01186
.148	.62588		.63771		.98817		.01183
.149	.62632		.63813		.98819		.01181
2.150	0.62677	44,6	0.63856	42,3	9.98821	2,4	0.01179
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.150	0.62677	44,6	0.63856	42,3	9.98821	2,4	0.01179
.151	.62722		.63898		.98824		.01176
.152	.62766		.63940		.98826	2,3	.01174
.153	.62811		.63982		.98828		.01172
.154	.62855		.64025		.98831		.01169
2.155	0.62900	44,6	0.64067	42,3	9.98833	2,3	0.01167
.156	.62945		.64109		.98835		.01165
.157	.62989		.64152		.98838		.01162
.158	.63034		.64194		.98840		.01160
.159	.63079		.64236		.98842		.01158
2.160	0.63123	44,6	0.64278	42,3	9.98845	2,3	0.01155
.161	.63168		.64321		.98847		.01153
.162	.63212		.64363		.98849		.01151
.163	.63257		.64405		.98852		.01148
.164	.63302		.64448		.98854		.01146
2.165	0.63346	44,6	0.64490	42,3	9.98856	2,3	0.01144
.166	.63391		.64532		.98859		.01141
.167	.63435		.64574		.98861		.01139
.168	.63480		.64617		.98863		.01137
.169	.63524		.64659		.98865		.01135
2.170	0.63569	44,6	0.64701	42,3	9.98868	2,3	0.01132
.171	.63614		.64744		.98870		.01130
.172	.63658		.64786		.98872		.01128
.173	.63703		.64828		.98874		.01126
.174	.63747		.64871		.98877	2,2	.01123
2.175	0.63792	44,6	0.64913	42,3	9.98879	2,2	0.01121
.176	.63836		.64955		.98881		.01119
.177	.63881		.64998		.98883		.01117
.178	.63926		.65040		.98886		.01114
.179	.63970		.65082		.98888		.01112
2.180	0.64015	44,6	0.65125	42,3	9.98890	2,2	0.01110
.181	.64059		.65167		.98892		.01108
.182	.64104	44,5	.65209		.98894		.01106
.183	.64148		.65252		.98897		.01103
.184	.64193		.65294		.98899		.01101
2.185	0.64237	44,5	0.65336	42,3	9.98901	2,2	0.01099
.186	.64282		.65379		.98903		.01097
.187	.64326		.65421	42,4	.98905		.01095
.188	.64371		.65463		.98908		.01092
.189	.64416		.65506		.98910		.01090
2.190	0.64460	44,5	0.65548	42,4	9.98912	2,2	0.01088
.191	.64505		.65590		.98914		.01086
.192	.64549		.65633		.98916		.01084
.193	.64594		.65675		.98919		.01081
.194	.64638		.65718		.98921		.01079
2.195	0.64683	44,5	0.65760	42,4	9.98923	2,2	0.01077
.196	.64727		.65802		.98925		.01075
.197	.64772		.65845		.98927	2,1	.01073
.198	.64816		.65887		.98929		.01071
.199	.64861		.65929		.98931		.01069
2.200	0.64905	44,5	0.65972	42,4	9.98934	2,1	0.01066
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.200	0.64905	44,5	0.65972	42,4	9.98934	2,1	0.01066
.201	.64950		.66014		.98936		.01064
.202	.64994		.66056		.98938		.01062
.203	.65039		.66099		.98940		.01060
.204	.65083		.66141		.98942		.01058
2.205	0.65128	44,5	0.66184	42,4	9.98944	2,1	0.01056
.206	.65172		.66226		.98946		.01054
.207	.65217		.66268		.98948		.01052
.208	.65261		.66311		.98950		.01050
.209	.65306		.66353		.98953		.01047
2.210	0.65350	44,5	0.66396	42,4	9.98955	2,1	0.01045
.211	.65395		.66438		.98957		.01043
.212	.65439		.66480		.98959		.01041
.213	.65484		.66523		.98961		.01039
.214	.65528		.66565		.98963		.01037
2.215	0.65573	44,5	0.66608	42,4	9.98965	2,1	0.01035
.216	.65617		.66650		.98967		.01033
.217	.65662		.66692		.98969		.01031
.218	.65706		.66735		.98971		.01029
.219	.65751		.66777		.98973		.01027
2.220	0.65795	44,5	0.66820	42,4	9.98975	2,0	0.01025
.221	.65840		.66862		.98977		.01023
.222	.65884		.66905		.98979		.01021
.223	.65928		.66947		.98982		.01018
.224	.65973		.66989		.98984		.01016
2.225	0.66017	44,5	0.67032	42,4	9.98986	2,0	0.01014
.226	.66062		.67074		.98988		.01012
.227	.66106		.67117		.98990		.01010
.228	.66151	44,4	.67159		.98992		.01008
.229	.66195		.67202		.98994		.01006
2.230	0.66240	44,4	0.67244	42,4	9.98996	2,0	0.01004
.231	.66284		.67286		.98998		.01002
.232	.66328		.67329		.99000		.01000
.233	.66373		.67371		.99002		.00998
.234	.66417		.67414		.99004		.00996
2.235	0.66462	44,4	0.67456	42,4	9.99006	2,0	0.00994
.236	.66506		.67499		.99008		.00992
.237	.66551		.67541	42,5	.99010		.00990
.238	.66595		.67583		.99012		.00988
.239	.66640		.67626		.99014		.00986
2.240	0.66684	44,4	0.67668	42,5	9.99016	2,0	0.00984
.241	.66728		.67711		.99018		.00982
.242	.66773		.67753		.99019		.00981
.243	.66817		.67796		.99021		.00979
.244	.66862		.67838		.99023		.00977
2.245	0.66906	44,4	0.67881	42,5	9.99025	1,9	0.00975
.246	.66950		.67923		.99027		.00973
.247	.66995		.67966		.99029		.00971
.248	.67039		.68008		.99031		.00969
.249	.67084		.68051		.99033		.00967
2.250	0.67128	44,4	0.68093	42,5	9.99035	1,9	0.00965
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
2.250	0.67128	44,4	0.68093	42,5	9.99035	1,9	0.00965
.251	.67173		.68136		.99037		.00963
.252	.67217		.68178		.99039		.00961
.253	.67261		.68220		.99041		.00959
.254	.67306		.68263		.99043		.00957
2.255	0.67350	44,4	0.68305	42,5	9.99045	1,9	0.00955
.256	.67394		.68348		.99047		.00953
.257	.67439		.68390		.99048		.00952
.258	.67483		.68433		.99050		.00950
.259	.67528		.68475		.99052		.00948
2.260	0.67572	44,4	0.68518	42,5	9.99054	1,9	0.00946
.261	.67616		.68560		.99056		.00944
.262	.67661		.68603		.99058		.00942
.263	.67705		.68645		.99060		.00940
.264	.67750		.68688		.99062		.00938
2.265	0.67794	44,4	0.68730	42,5	9.99064	1,9	0.00936
.266	.67838		.68773		.99065		.00935
.267	.67883		.68815		.99067		.00933
.268	.67927		.68858		.99069		.00931
.269	.67971		.68900		.99071		.00929
2.270	0.68016	44,4	0.68943	42,5	9.99073	1,9	0.00927
.271	.68060		.68985		.99075		.00925
.272	.68105		.69028		.99077	1,8	.00923
.273	.68149		.69070		.99078		.00922
.274	.68193		.69113		.99080		.00920
2.275	0.68238	44,4	0.69156	42,5	9.99082	1,8	0.00918
.276	.68282		.69198		.99084		.00916
.277	.68326		.69241		.99086		.00914
.278	.68371		.69283		.99088		.00912
.279	.68415	44,3	.69326		.99089		.00911
2.280	0.68459	44,3	0.69368	42,5	9.99091	1,8	0.00909
.281	.68504		.69411		.99093		.00907
.282	.68548		.69453		.99095		.00905
.283	.68592		.69496		.99097		.00903
.284	.68637		.69538		.99098		.00902
2.285	0.68681	44,3	0.69581	42,5	9.99100	1,8	0.00900
.286	.68725		.69623		.99102		.00898
.287	.68770		.69666		.99104		.00896
.288	.68814		.69708		.99106		.00894
.289	.68858		.69751		.99107		.00893
2.290	0.68903	44,3	0.69794	42,5	9.99109	1,8	0.00891
.291	.68947		.69836		.99111		.00889
.292	.68991		.69879	42,6	.99113		.00887
.293	.69036		.69921		.99115		.00885
.294	.69080		.69964		.99116		.00884
2.295	0.69124	44,3	0.70006	42,6	9.99118	1,8	0.00882
.296	.69169		.70049		.99120		.00880
.297	.69213		.70091		.99122		.00878
.298	.69257		.70134		.99123		.00877
.299	.69302		.70177		.99125	1,7	.00875
2.300	0.69346	44,3	0.70219	42,6	9.99127	1,7	0.00873
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.300	0.69346	44,3	0.70219	42,6	9.99127	1,7	0.00873
.301	.69390		.70262		.99129		.00871
.302	.69435		.70304		.99130		.00870
.303	.69479		.70347		.99132		.00868
.304	.69523		.70389		.99134		.00866
2.305	0.69568	44,3	0.70432	42,6	9.99136	1,7	0.00864
.306	.69612		.70475		.99137		.00863
.307	.69656		.70517		.99139		.00861
.308	.69700		.70560		.99141		.00859
.309	.69745		.70602		.99142		.00858
2.310	0.69789	44,3	0.70645	42,6	9.99144	1,7	0.00856
.311	.69833		.70687		.99146		.00854
.312	.69878		.70730		.99148		.00852
.313	.69922		.70773		.99149		.00851
.314	.69966		.70815		.99151		.00849
2.315	0.70010	44,3	0.70858	42,6	9.99153	1,7	0.00847
.316	.70055		.70900		.99154		.00846
.317	.70099		.70943		.99156		.00844
.318	.70143		.70986		.99158		.00842
.319	.70188		.71028		.99159		.00841
2.320	0.70232	44,3	0.71071	42,6	9.99161	1,7	0.00839
.321	.70276		.71113		.99163		.00837
.322	.70320		.71156		.99164		.00836
.323	.70365		.71199		.99166		.00834
.324	.70409		.71241		.99168		.00832
2.325	0.70453	44,3	0.71284	42,6	9.99169	1,7	0.00831
.326	.70497		.71326		.99171		.00829
.327	.70542		.71369		.99173		.00827
.328	.70586		.71412		.99174		.00826
.329	.70630		.71454		.99176	1,6	.00824
2.330	0.70675	44,3	0.71497	42,6	9.99178	1,6	0.00822
.331	.70719		.71539		.99179		.00821
.332	.70763		.71582		.99181		.00819
.333	.70807		.71625		.99183		.00817
.334	.70852		.71667		.99184		.00816
2.335	0.70896	44,3	0.71710	42,6	9.99186	1,6	0.00814
.336	.70940	44,2	.71753		.99188		.00812
.337	.70984		.71795		.99189		.00811
.338	.71029		.71838		.99191		.00809
.339	.71073		.71880		.99192		.00808
2.340	0.71117	44,2	0.71923	42,6	9.99194	1,6	0.00806
.341	.71161		.71966		.99196		.00804
.342	.71206		.72008		.99197		.00803
.343	.71250		.72051		.99199		.00801
.344	.71294		.72094		.99200		.00800
2.345	0.71338	44,2	0.72136	42,6	9.99202	1,6	0.00798
.346	.71382		.72179		.99204		.00796
.347	.71427		.72221		.99205		.00795
.348	.71471		.72264		.99207		.00793
.349	.71515		.72307		.99208		.00792
2.350	0.71559	44,2	0.72349	42,6	9.99210	1,6	0.00790
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.350	0.71559	44,2	0.72349	42,6	9.99210	1,6	0.00790
.351	.71604		.72392		.99212		.00788
.352	.71648		.72435		.99213		.00787
.353	.71692		.72477	42,7	.99215		.00785
.354	.71736		.72520		.99216		.00784
2.355	0.71781	44,2	0.72563	42,7	9.99218	1,6	0.00782
.356	.71825		.72605		.99219		.00781
.357	.71869		.72648		.99221		.00779
.358	.71913		.72691		.99223		.00777
.359	.71957		.72733		.99224		.00776
2.360	0.72002	44,2	0.72776	42,7	9.99226	1,5	0.00774
.361	.72046		.72819		.99227		.00773
.362	.72090		.72861		.99229		.00771
.363	.72134		.72904		.99230		.00770
.364	.72178		.72947		.99232		.00768
2.365	0.72223	44,2	0.72989	42,7	9.99233	1,5	0.00767
.366	.72267		.73032		.99235		.00765
.367	.72311		.73075		.99236		.00764
.368	.72355		.73117		.99238		.00762
.369	.72399		.73160		.99239		.00761
2.370	0.72444	44,2	0.73203	42,7	9.99241	1,5	0.00759
.371	.72488		.73245		.99242		.00758
.372	.72532		.73288		.99244		.00756
.373	.72576		.73331		.99245		.00755
.374	.72620		.73373		.99247		.00753
2.375	0.72665	44,2	0.73416	42,7	9.99249	1,5	0.00751
.376	.72709		.73459		.99250		.00750
.377	.72753		.73501		.99252		.00748
.378	.72797		.73544		.99253		.00747
.379	.72841		.73587		.99254		.00746
2.380	0.72885	44,2	0.73630	42,7	9.99256	1,5	0.00744
.381	.72930		.73672		.99257		.00743
.382	.72974		.73715		.99259		.00741
.383	.73018		.73758		.99260		.00740
.384	.73062		.73800		.99262		.00738
2.385	0.73106	44,2	0.73843	42,7	9.99263	1,5	0.00737
.386	.73151		.73886		.99265		.00735
.387	.73195		.73928		.99266		.00734
.388	.73239		.73971		.99268		.00732
.389	.73283		.74014		.99269		.00731
2.390	0.73327	44,2	0.74056	42,7	9.99271	1,5	0.00729
.391	.73371		.74099		.99272		.00728
.392	.73416		.74142		.99274		.00726
.393	.73460		.74185		.99275	1,4	.00725
.394	.73504		.74227		.99277		.00723
2.395	0.73548	44,2	0.74270	42,7	9.99278	1,4	0.00722
.396	.73592		.74313		.99279		.00721
.397	.73636		.74355		.99281		.00719
.398	.73680		.74398		.99282		.00718
.399	.73725		.74441		.99284		.00716
2.400	0.73769	44,2	0.74484	42,7	9.99285	1,4	0.00715
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.400	0.73769	44,2	0.74484	42,7	9.99285	1,4	0.00715
.401	.73813	44,1	.74526		.99287		.00713
.402	.73857		.74569		.99288		.00712
.403	.73901		.74612		.99289		.00711
.404	.73945		.74655		.99291		.00709
2.405	0.73990	44,1	0.74697	42,7	9.99292	1,4	0.00708
.406	.74034		.74740		.99294		.00706
.407	.74078		.74783		.99295		.00705
.408	.74122		.74825		.99297		.00703
.409	.74166		.74868		.99298		.00702
2.410	0.74210	44,1	0.74911	42,7	9.99299	1,4	0.00701
.411	.74254		.74954		.99301		.00699
.412	.74298		.74996		.99302		.00698
.413	.74343		.75039		.99304		.00696
.414	.74387		.75082		.99305		.00695
2.415	0.74431	41,1	0.75125	42,7	9.99306	1,4	0.00694
.416	.74475		.75167		.99308		.00692
.417	.74519		.75210		.99309		.00691
.418	.74563		.75253		.99310		.00690
.419	.74607		.75296		.99312		.00688
2.420	0.74652	44,1	0.75338	42,7	9.99313	1,4	0.00687
.421	.74696		.75381		.99315		.00685
.422	.74740		.75424	42,8	.99316		.00684
.423	.74784		.75467		.99317		.00683
.424	.74828		.75509		.99319		.00681
2.425	0.74872	44,1	0.75552	42,8	9.99320	1,4	0.00680
.426	.74916		.75595		.99321		.00679
.427	.74960		.75638		.99323		.00677
.428	.75004		.75680		.99324		.00676
.429	.75049		.75723		.99325	1,3	.00675
2.430	0.75093	44,1	0.75766	42,8	9.99327	1,3	0.00673
.431	.75137		.75809		.99328		.00672
.432	.75181		.75851		.99329		.00671
.433	.75225		.75894		.99331		.00669
.434	.75269		.75937		.99332		.00668
2.435	0.75313	44,1	0.75980	42,8	9.99333	1,3	0.00667
.436	.75357		.76022		.99335		.00665
.437	.75401		.76065		.99336		.00664
.438	.75445		.76108		.99337		.00663
.439	.75490		.76151		.99339		.00661
2.440	0.75534	44,1	0.76194	42,8	9.99340	1,3	0.00660
.441	.75578		.76236		.99341		.00659
.442	.75622		.76279		.99343		.00657
.443	.75666		.76322		.99344		.00656
.444	.75710		.76365		.99345		.00655
2.445	0.75754	44,1	0.76407	42,8	9.99347	1,3	0.00653
.446	.75798		.76450		.99348		.00652
.447	.75842		.76493		.99349		.00651
.448	.75886		.76536		.99351		.00649
.449	.75930		.76579		.99352		.00648
2.450	0.75975	44,1	0.76621	42,8	9.99353	1,3	0.00647
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.450	0.75975	44,1	0.76621	42,8	9.99353	1,3	0.00647
.451	.76019		.76664		.99354		.00646
.452	.76063		.76707		.99356		.00644
.453	.76107		.76750		.99357		.00643
.454	.76151		.76793		.99358		.00642
2.455	0.76195	44,1	0.76835	42,8	9.99360	1,3	0.00640
.456	.76239		.76878		.99361		.00639
.457	.76283		.76921		.99362		.00638
.458	.76327		.76964		.99363		.00637
.459	.76371		.77006		.99365		.00635
2.460	0.76415	44,1	0.77049	42,8	9.99366	1,3	0.00634
.461	.76459		.77092		.99367		.00633
.462	.76503		.77135		.99369		.00631
.463	.76547		.77178		.99370		.00630
.464	.76592		.77220		.99371		.00629
2.465	0.76636	44,1	0.77263	42,8	9.99372	1,3	0.00628
.466	.76680		.77306		.99374		.00626
.467	.76724		.77349		.99375		.00625
.468	.76768		.77392		.99376	1,2	.00624
.469	.76812		.77435		.99377		.00623
2.470	0.76856	44,1	0.77477	42,8	9.99379	1,2	0.00621
.471	.76900		.77520		.99380		.00620
.472	.76944		.77563		.99381		.00619
.473	.76988		.77606		.99382		.00618
.474	.77032		.77649		.99384		.00616
2.475	0.77076	44,0	0.77691	42,8	9.99385	1,2	0.00615
.476	.77120		.77734		.99386		.00614
.477	.77164		.77777		.99387		.00613
.478	.77208		.77820		.99388		.00612
.479	.77252		.77863		.99390		.00610
2.480	0.77296	44,0	0.77906	42,8	9.99391	1,2	0.00609
.481	.77340		.77948		.99392		.00608
.482	.77384		.77991		.99393		.00607
.483	.77429		.78034		.99394		.00606
.484	.77473		.78077		.99396		.00604
2.485	0.77517	44,0	0.78120	42,8	9.99397	1,2	0.00603
.486	.77561		.78163		.99398		.00602
.487	.77605		.78205		.99399		.00601
.488	.77649		.78248		.99401		.00599
.489	.77693		.78292		.99402		.00598
2.490	0.77737	44,0	0.78334	42,8	9.99403	1,2	0.00597
.491	.77781		.78377		.99404		.00596
.492	.77825		.78420		.99405		.00595
.493	.77869		.78462		.99406		.00594
.494	.77913		.78505		.99408		.00592
2.495	0.77957	44,0	0.78548	42,8	9.99409	1,2	0.00591
.496	.78001		.78591		.99410		.00590
.497	.78045		.78634		.99411		.00589
.498	.78089		.78677		.99412		.00588
.499	.78133		.78719		.99414		.00586
2.500	0.78177	44,0	0.78762	42,8	9.99415	1,2	0.00585
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.500	0.78177	44,0	0.78762	42,8	9.99415	1,2	0.00585
.501	.78221		.78805		.99416		.00584
.502	.78265		.78848	42,9	.99417		.00583
.503	.78309		.78891		.99418		.00582
.504	.78353		.78934		.99419		.00581
2.505	0.78397	44,0	0.78977	42,9	9.99421	1,2	0.00579
.506	.78441		.79019		.99422		.00578
.507	.78485		.79062		.99423		.00577
.508	.78529		.79105		.99424		.00576
.509	.78573		.79148		.99425	1,1	.00575
2.510	0.78617	44,0	0.79191	42,9	9.99426	1,1	0.00574
.511	.78661		.79234		.99427		.00573
.512	.78705		.79277		.99429		.00571
.513	.78749		.79319		.99430		.00570
.514	.78793		.79362		.99431		.00569
2.515	0.78837	44,0	0.79405	42,9	9.99432	1,1	0.00568
.516	.78881		.79448		.99433		.00567
.517	.78925		.79491		.99434		.00566
.518	.78969		.79534		.99435		.00565
.519	.79013		.79577		.99437		.00563
2.520	0.79057	44,0	0.79619	42,9	9.99438	1,1	0.00562
.521	.79101		.79662		.99439		.00561
.522	.79145		.79705		.99440		.00560
.523	.79189		.79748		.99441		.00559
.524	.79233		.79791		.99442		.00558
2.525	0.79277	44,0	0.79834	42,9	9.99443	1,1	0.00557
.526	.79321		.79877		.99444		.00556
.527	.79365		.79920		.99446		.00554
.528	.79409		.79962		.99447		.00553
.529	.79453		.80005		.99448		.00552
2.530	0.79497	44,0	0.80048	42,9	9.99449	1,1	0.00551
.531	.79541		.80091		.99450		.00550
.532	.79585		.80134		.99451		.00549
.533	.79629		.80177		.99452		.00548
.534	.79673		.80220		.99453		.00547
2.535	0.79717	44,0	0.80263	42,9	9.99454	1,1	0.00546
.536	.79761		.80306		.99455		.00545
.537	.79805		.80348		.99456		.00544
.538	.79849		.80391		.99458		.00542
.539	.79893		.80434		.99459		.00541
2.540	0.79937	44,0	0.80477	42,9	9.99460	1,1	0.00540
.541	.79981		.80520		.99461		.00539
.542	.80025		.80563		.99462		.00538
.543	.80069		.80606		.99463		.00537
.544	.80113		.80649		.99464		.00536
2.545	0.80157	44,0	0.80692	42,9	9.99465	1,1	0.00535
.546	.80201		.80734		.99466		.00534
.547	.80245		.80777		.99467		.00533
.548	.80289		.80820		.99468		.00532
.549	.80333		.80863		.99469		.00531
2.550	0.80377	44,0	0.80906	42,9	9.99470	1,1	0.00530
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.550	0.80377	44,0	0.80906	42,9	9.99470	1,1	0.00530
.551	.80420		.80949		.99471		.00529
.552	.80464		.80992		.99473		.00527
.553	.80508		.81035		.99474		.00526
.554	.80552		.81078		.99475		.00525
2.555	0.80596	44,0	0.81121	42,9	9.99476	1,0	0.00524
.556	.80640		.81164		.99477		.00523
.557	.80684		.81206		.99478		.00522
.558	.80728		.81249		.99479		.00521
.559	.80772		.81292		.99480		.00520
2.560	0.80816	44,0	0.81335	42,9	9.99481	1,0	0.00519
.561	.80860		.81378		.99482		.00518
.562	.80904	43,9	.81421		.99483		.00517
.563	.80948		.81464		.99484		.00516
.564	.80992		.81507		.99485		.00515
2.565	0.81036	43,9	0.81550	42,9	9.99486	1,0	0.00514
.566	.81080		.81593		.99487		.00513
.567	.81124		.81636		.99488		.00512
.568	.81168		.81678		.99489		.00511
.569	.81212		.81721		.99490		.00510
2.570	0.81256	43,9	0.81764	42,9	9.99491	1,0	0.00509
.571	.81299		.81807		.99492		.00508
.572	.81343		.81850		.99493		.00507
.573	.81387		.81893		.99494		.00506
.574	.81431		.81936		.99495		.00505
2.575	0.81475	43,9	0.81979	42,9	9.99496	1,0	0.00504
.576	.81519		.82022		.99497		.00503
.577	.81563		.82065		.99498		.00502
.578	.81607		.82108		.99499		.00501
.579	.81651		.82151		.99500		.00500
2.580	0.81695	43,9	0.82194	42,9	9.99501	1,0	0.00499
.581	.81739		.82237		.99502		.00498
.582	.81783		.82279		.99503		.00497
.583	.81827		.82322		.99504		.00496
.584	.81871		.82365		.99505		.00495
2.585	0.81915	43,9	0.82408	42,9	9.99506	1,0	0.00494
.586	.81958		.82451		.99507		.00493
.587	.82002		.82494		.99508		.00492
.588	.82046		.82537		.99509		.00491
.589	.82090		.82580		.99510		.00490
2.590	0.82134	43,9	0.82623	42,9	9.99511	1,0	0.00489
.591	.82178		.82666		.99512		.00488
.592	.82222		.82709		.99513		.00487
.593	.82266		.82752		.99514		.00486
.594	.82310		.82795		.99515		.00485
2.595	0.82354	43,9	0.82838	42,9	9.99516	1,0	0.00484
.596	.82398		.82881		.99517		.00483
.597	.82442		.82924	43,0	.99518		.00482
.598	.82485		.82967		.99519		.00481
.599	.82529		.83010		.99520		.00480
2.600	0.82573	43,9	0.83052	43,0	9.99521	1,0	0.00479
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
2.600	0.82573	43,9	0.83052	43,0	9.99521	1,0	0.00479
.601	.82617		.83095		.99522		.00478
.602	.82661		.83138		.99523		.00477
.603	.82705		.83181		.99524		.00476
.604	.82749		.83224		.99525		.00475
2.605	0.82793	43,9	0.83267	43,0	9.99526	0,9	0.00474
.606	.82837		.83310		.99527		.00473
.607	.82881		.83353		.99527		.00473
.608	.82925		.83396		.99528		.00472
.609	.82968		.83439		.99529		.00471
2.610	0.83012	43,9	0.83482	43,0	9.99530	0,9	0.00470
.611	.83056		.83525		.99531		.00469
.612	.83100		.83568		.99532		.00468
.613	.83144		.83611		.99533		.00467
.614	.83188		.83654		.99534		.00466
2.615	0.83232	43,9	0.83697	43,0	9.99535	0,9	0.00465
.616	.83276		.83740		.99536		.00464
.617	.83320		.83783		.99537		.00463
.618	.83364		.83826		.99538		.00462
.619	.83407		.83869		.99539		.00461
2.620	0.83451	43,9	0.83912	43,0	9.99540	0,9	0.00460
.621	.83495		.83955		.99541		.00459
.622	.83539		.83998		.99541		.00459
.623	.83583		.84041		.99542		.00458
.624	.83627		.84084		.99543		.00457
2.625	0.83671	43,9	0.84127	43,0	9.99544	0,9	0.00456
.626	.83715		.84170		.99545		.00455
.627	.83759		.84213		.99546		.00454
.628	.83802		.84256		.99547		.00453
.629	.83846		.84299		.99548		.00452
2.630	0.83890	43,9	0.84341	43,0	9.99549	0,9	0.00451
.631	.83934		.84384		.99550		.00450
.632	.83978		.84427		.99551		.00449
.633	.84022		.84470		.99551		.00449
.634	.84066		.84513		.99552		.00448
2.635	0.84110	43,9	0.84556	43,0	9.99553	0,9	0.00447
.636	.84154		.84599		.99554		.00446
.637	.84197		.84642		.99555		.00445
.638	.84241		.84685		.99556		.00444
.639	.84285		.84728		.99557		.00443
2.640	0.84329	43,9	0.84771	43,0	9.99558	0,9	0.00442
.641	.84373		.84814		.99559		.00441
.642	.84417		.84857		.99559		.00441
.643	.84461		.84900		.99560		.00440
.644	.84505		.84943		.99561		.00439
2.645	0.84548	43,9	0.84986	43,0	9.99562	0,9	0.00438
.646	.84592		.85029		.99563		.00437
.647	.84636		.85072		.99564		.00436
.648	.84680		.85115		.99565		.00435
.649	.84724		.85158		.99566		.00434
2.650	0.84768	43,9	0.85201	43,0	9.99566	0,9	0.00434
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.650	0.84768	43,9	0.85201	43,0	9.99566	0,9	0.00434
.651	.84812		.85244		.99567		.00433
.652	.84855		.85287		.99568		.00432
653	.84899		.85330		.99569		.00431
.654	.84943		.85373		.99570		.00430
2.655	0.84987	43,9	0.85416	43,0	9.99571	0,9	0.00429
.656	.85031		.85459		.99572		.00428
.657	.85075		.85502		.99572		.00428
.658	.85119		.85545		.99573		.00427
.659	.85162		.85588		.99574		.00426
2.660	0.85206	43,9	0.85631	43,0	9.99575	0,8	0.00425
.661	.85250		.85674		.99576		.00424
.662	.85294		.85717		.99577		.00423
.663	.85338		.85760		.99578		.00422
.664	.85382		.85803		.99578		.00422
2.665	0.85426	43,9	0.85846	43,0	9.99579	0,8	0.00421
.666	.85469		.85889		.99580		.00420
.667	.85513		.85932		.99581		.00419
.668	.85557	43,8	.85975		.99582		.00418
.669	.85601		.86018		.99583		.00417
2.670	0.85645	43,8	0.86061	43,0	9.99583	0,8	0.00417
.671	.85689		.86104		.99584		.00416
.672	.85733		.86147		.99585		.00415
.673	.85776		.86190		.99586		.00414
.674	.85820		.86233		.99587		.00413
2.675	0.85864	43,8	0.86276	43,0	9.99588	0,8	0.00412
.676	.85908		.86320		.99588		.00412
.677	.85952		.86363		.99589		.00411
.678	.85996		.86406		.99590		.00410
.679	.86039		.86449		.99591		.00409
2.680	0.86083	43,8	0.86492	43,0	9.99592	0,8	0.00408
.681	.86127		.86535		.99592		.00408
.682	.86171		.86578		.99593		.00407
.683	.86215		.86621		.99594		.00406
.684	.86259		.86664		.99595		.00405
2.685	0.86302	43,8	0.86707	43,0	9.99596	0,8	0.00404
.686	.86346		.86750		.99597		.00403
.687	.86390		.86793		.99597		.00403
.688	.86434		.86836		.99598		.00402
.689	.86478		.86879		.99599		.00401
2.690	0.86522	43,8	0.86922	43,0	9.99600	0,8	0.00400
.691	.86565		.86965		.99601		.00399
.692	.86609		.87008		.99601		.00399
.693	.86653		.87051		.99602		.00398
.694	.86697		.87094		.99603		.00397
2.695	0.86741	43,8	0.87137	43,0	9.99604	0,8	0.00396
.696	.86785		.87180		.99605		.00395
.697	.86828		.87223		.99605		.00395
.698	.86872		.87266		.99606		.00394
.699	.86916		.87309		.99607		.00393
2.700	0.86960	43,8	0.87352	43,0	9.99608	0,8	0.00392
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.700	0.86960	43,8	0.87352	43,0	9.99608	0,8	0.00392
.701	.87004		.87395		.99608		.00392
.702	.87048		.87438		.99609		.00391
.703	.87091		.87481		.99610		.00390
.704	.87135		.87524		.99611		.00389
2.705	0.87179	43,8	0.87567	43,0	9.99612	0,8	0.00388
.706	.87223		.87610		.99612		.00388
.707	.87267		.87654		.99613		.00387
.708	.87310		.87697		.99614		.00386
.709	.87354		.87740		.99615		.00385
2.710	0.87398	43,8	0.87783	43,0	9.99615	0,8	0.00385
.711	.87442		.87826		.99616		.00384
.712	.87486		.87869		.99617		.00383
.713	.87530		.87912		.99618		.00382
.714	.87573		.87955		.99619		.00381
2.715	0.87617	43,8	0.87998	43,1	9.99619	0,8	0.00381
.716	.87661		.88041		.99620		.00380
.717	.87705		.88084		.99621		.00379
.718	.87749		.88127		.99622		.00378
.719	.87792		.88170		.99622		.00378
2.720	0.87836	43,8	0.88213	43,1	9.99623	0,8	0.00377
.721	.87880		.88256		.99624		.00376
.722	.87924		.88299		.99625		.00375
.723	.87968		.88342		.99625	0,7	.00375
.724	.88011		.88385		.99626		.00374
2.725	0.88055	43,8	0.88428	43,1	9.99627	0,7	0.00373
.726	.88099		.88471		.99628		.00372
.727	.88143		.88515		.99628		.00372
.728	.88187		.88558		.99629		.00371
.729	.88230		.88601		.99630		.00370
2.730	0.88274	43,8	0.88644	43,1	9.99631	0,7	0.00369
.731	.88318		.88687		.99631		.00369
.732	.88362		.88730		.99632		.00368
.733	.88406		.88773		.99633		.00367
.734	.88449		.88816		.99633		.00367
2.735	0.88493	43,8	0.88859	43,1	9.99634	0,7	0.00366
.736	.88537		.88902		.99635		.00365
.737	.88581		.88945		.99636		.00364
.738	.88625		.88988		.99636		.00364
.739	.88668		.89031		.99637		.00363
2.740	0.88712	43,8	0.89074	43,1	9.99638	0,7	0.00362
.741	.88756		.89117		.99639		.00361
.742	.88800		.89161		.99639		.00361
.743	.88844		.89204		.99640		.00360
.744	.88887		.89247		.99641		.00359
2.745	0.88931	43,8	0.89290	43,1	9.99641	0,7	0.00359
.746	.88975		.89333		.99642		.00358
.747	.89019		.89376		.99643		.00357
.748	.89063		.89419		.99644		.00356
.749	.89106		.89462		.99644		.00356
2.750	0.89150	43,8	0.89505	43,1	9.99645	0,7	0.00355
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.750	0.89150	43,8	0.89505	43,1	9.99645	0,7	0.00355
.751	.89194		.89548		.99646		.00354
.752	.89238		.89591		.99646		.00354
.753	.89281		.89634		.99647		.00353
.754	.89325		.89677		.99648		.00352
2.755	0.89369	43,8	0.89720	43,1	9.99649	0,7	0.00351
.756	.89413		.89764		.99649		.00351
.757	.89457		.89807		.99650		.00350
.758	.89500		.89850		.99651		.00349
.759	.89544		.89893		.99651		.00349
2.760	0.89588	43,8	0.89936	43,1	9.99652	0,7	0.00348
.761	.89632		.89979		.99653		.00347
.762	.89676		.90022		.99653		.00347
.763	.89719		.90065		.99654		.00346
.764	.89763		.90108		.99655		.00345
2.765	0.89807	43,8	0.9015[illegible]	43,1	9.99656	0,7	0.00344
.766	.89851		[illegible]		.99656		.00344
.767	.89894		[illegible]		.99657		.00343
.768	.89938		[illegible]		.99658		.00342
.769	.89982		.90324		.99658		.00342
2.770	0.90026	43,8	0.90367	43,1	9.99659	0,7	0.00341
.771	.90069		.90410		.99660		.00340
.772	.90113		.90453		.99660		.00340
.773	.90157		.90496		.99661		.00339
.774	.90201		.90539		.99662		.00338
2.775	0.90245	43,8	0.90582	43,1	9.99662	0,7	0.00338
.776	.90288		.90625		.99663		.00337
.777	.90332		.90668		.99664		.00336
.778	.90376		.90712		.99664		.00336
.779	.90420		.90755		.99665		.00335
2.780	0.90463	43,8	0.90798	43,1	9.99666	0,7	0.00334
.781	.90507		.90841		.99666		.00334
.782	.90551		.90884		.99667		.00333
.783	.90595		.90927		.99668		.00332
.784	.90638		.90970		.99668		.00332
2.785	0.90682	43,8	0.91013	43,1	9.99669	0,7	0.00331
.786	.90726		.91056		.99670		.00330
.787	.90770		.91099		.99670		.00330
.788	.90813		.91142		.99671		.00329
.789	.90857		.91186		.99672		.00328
2.790	0.90901	43,8	0.91229	43,1	9.99672	0,7	0.00328
.791	.90945		.91272		.99673		.00327
.792	.90989		.91315		.99674		.00326
.793	.91032		.91358		.99674		.00326
.794	.91076		.91401		.99675		.00325
2.795	0.91120	43,8	0.91444	43,1	9.99676	0,6	0.00324
.796	.91164		.91487		.99676		.00324
.797	.91207		.91530		.99677		.00323
.798	.91251		.91574		.99678		.00322
.799	.91295		.91617		.99678		.00322
2.800	0.91339	43,8	0.91660	43,1	9.99679	0,6	0.00321
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.800	0.91339	43,8	0.91660	43,1	9.99679	0,6	0.00321
.801	.91382		.91703		.99679		.00321
.802	.91426		.91746		.99680		.00320
.803	.91470	43,7	.91789		.99681		.00319
.804	.91514		.91832		.99681		.00319
2.805	0.91557	43,7	0.91875	43,1	9.99682	0,6	0.00318
.806	.91601		.91918		.99683		.00317
.807	.91645		.91962		.99683		.00317
.808	.91689		.92005		.99684		.00316
.809	.91732		.92048		.99685		.00315
2.810	0.91776	43,7	0.92091	43,1	9.99685	0,6	0.00315
.811	.91820		.92134		.99686		.00314
.812	.91864		.92177		.99686		.00314
.813	.91907		.92220		.99687		.00313
.814	.91951		.92263		.99688		.00312
2.815	0.91995	43,7	0.92306	43,1	9.99688	0,6	0.00312
.816	.92039		.92350		.99689		.00311
.817	.92082		.92393		.99690		.00310
.818	.92126		.92436		.99690		.00310
.819	.92170		.92479		.99691		.00309
2.820	0.92213	43,7	0.92522	43,1	9.99691	0,6	0.00309
.821	.92257		.92565		.99692		.00308
.822	.92301		.92608		.99693		.00307
.823	.92345		.92651		.99693		.00307
.824	.92388		.92695		.99694		.00306
2.825	0.92432	43,7	0.92738	43,1	9.99694	0,6	0.00306
.826	.92476		.92781		.99695		.00305
.827	.92520		.92824		.99696		.00304
.828	.92563		.92867		.99696		.00304
.829	.92607		.92910		.99697		.00303
2.830	0.92651	43,7	0.92953	43,1	9.99698	0,6	0.00302
.831	.92695		.92996		.99698		.00302
.832	.92738		.93040		.99699		.00301
.833	.92782		.93083		.99699		.00301
.834	.92826		.93126		.99700		.00300
2.835	0.92869	43,7	0.93169	43,1	9.99701	0,6	0.00299
.836	.92913		.93212		.99701		.00299
.837	.92957		.93255		.99702		.00298
.838	.93001		.93298		.99702		.00298
.839	.93044		.93341		.99703		.00297
2.840	0.93088	43,7	0.93385	43,1	9.99704	0,6	0.00296
.841	.93132		.93428		.99704		.00296
.842	.93176		.93471		.99705		.00295
.843	.93219		.93514		.99705		.00295
.844	.93263		.93557		.99706		.00294
2.845	0.93307	43,7	0.93600	43,1	9.99706	0,6	0.00294
.846	.93350		.93643		.99707		.00293
.847	.93394		.93687		.99708		.00292
.848	.93438		.93730		.99708		.00292
.849	.93482		.93773		.99709		.00291
2.850	0.93525	43,7	0.93816	43,1	9.99709	0,6	0.00291
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
2.850	0.93525	43,7	0.93816	43,1	9.99709	0,6	0.00291
.851	.93569		.93859		.99710		.00290
.852	.93613		.93902		.99711		.00289
.853	.93657		.93945		.99711		.00289
.854	.93700		.93989		.99712		.00288
2.855	0.93744	43,7	0.94032	43,1	9.99712	0,6	0.00288
.856	.93788		.94075		.99713		.00287
.857	.93831		.94118		.99713		.00287
.858	.93875		.94161		.99714		.00286
.859	.93919		.94204		.99715		.00285
2.860	0.93963	43,7	0.94247	43,1	9.99715	0,6	0.00285
.861	.94006		.94291		.99716		.00284
.862	.94050		.94334		.99716		.00284
.863	.94094		.94377		.99717		.00283
.864	.94137		.94420		.99717		.00283
2.865	0.94181	43,7	0.94463	43,1	9.99718	0,6	0.00282
.866	.94225		.94506		.99719		.00281
.867	.94269		.94549		.99719		.00281
.868	.94312		.94593		.99720		.00280
.869	.94356		.94636	43,2	.99720		.00280
2.870	0.94400	43,7	0.94679	43,2	9.99721	0,6	0.00279
.871	.94443		.94722		.99721		.00279
.872	.94487		.94765		.99722		.00278
.873	.94531		.94808		.99722		.00278
.874	.94575		.94852		.99723		.00277
2.875	0.94618	43,7	0.94895	43,2	9.99724	0,6	0.00276
.876	.94662		.94938		.99724		.00276
.877	.94706		.94981		.99725		.00275
.878	.94749		.95024		.99725	0,5	.00275
.879	.94793		.95067		.99726		.00274
2.880	0.94837	43,7	0.95110	43,2	9.99726	0,5	0.00274
.881	.94880		.95154		.99727		.00273
.882	.94924		.95197		.99727		.00273
.883	.94968		.95240		.99728		.00272
.884	.95012		.95283		.99728		.00272
2.885	0.95055	43,7	0.95326	43,2	9.99729	0,5	0.00271
.886	.95099		.95369		.99730		.00270
.887	.95143		.95413		.99730		.00270
.888	.95186		.95456		.99731		.00269
.889	.95230		.95499		.99731		.00269
2.890	0.95274	43,7	0.95542	43,2	9.99732	0,5	0.00268
.891	.95317		.95585		.99732		.00268
.892	.95361		.95628		.99733		.00267
.893	.95405		.95672		.99733		.00267
.894	.95449		.95715		.99734		.00266
2.895	0.95492	43,7	0.95758	43,2	9.99734	0,5	0.00266
.896	.95536		.95801		.99735		.00265
.897	.95580		.95844		.99735		.00265
.898	.95623		.95887		.99736		.00264
.899	.95667		.95931		.99737		.00263
2.900	0.95711	43,7	0.95974	43,2	9.99737	0,5	0.00263
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
2.900	0.95711	43,7	0.95974	43,2	9.99737	0,5	0.00263
.901	.95754		.96017		.99738		.00262
.902	.95798		.96060		.99738		.00262
.903	.95842		.96103		.99739		.00261
.904	.95885		.96146		.99739		.00261
2.905	0.95929	43,7	0.96190	43,2	9.99740	0,5	0.00260
.906	.95973		.96233		.99740		.00260
.907	.96017		.96276		.99741		.00259
.908	.96060		.96319		.99741		.00259
.909	.96104		.96362		.99742		.00258
2.910	0.96148	43,7	0.96405	43,2	9.99742	0,5	0.00258
.911	.96191		.96449		.99743		.00257
.912	.96235		.96492		.99743		.00257
.913	.96279		.96535		.99744		.00256
.914	.96322		.96578		.99744		.00256
2.915	0.96366	43,7	0.96621	43,2	9.99745	0,5	0.00255
.916	.96410		.96664		.99745		.00255
.917	.96453		.96708		.99746		.00254
.918	.96497		.96751		.99746		.00254
.919	.96541		.96794		.99747		.00253
2.920	0.96584	43,7	0.96837	43,2	9.99747	0,5	0.00253
.921	.96628		.96880		.99748		.00252
.922	.96672		.96923		.99748		.00252
.923	.96716		.96967		.99749		.00251
.924	.96759		.97010		.99749		.00251
2.925	0.96803	43,7	0.97053	43,2	9.99750	0,5	0.00250
.926	.96847		.97096		.99750		.00250
.927	.96890		.97139		.99751		.00249
.928	.96934		.97183		.99751		.00249
.929	.96978		.97226		.99752		.00248
2.930	0.97021	43,7	0.97269	43,2	9.99752	0,5	0.00248
.931	.97065		.97312		.99753		.00247
.932	.97109		.97355		.99753		.00247
.933	.97152		.97398		.99754		.00246
.934	.97196		.97442		.99754		.00246
2.935	0.97240	43,7	0.97485	43,2	9.99755	0,5	0.00245
.936	.97283		.97528		.99755		.00245
.937	.97327		.97571		.99756		.00244
.938	.97371		.97614		.99756		.00244
.939	.97414		.97658		.99757		.00243
2.940	0.97458	43,7	0.97701	43,2	9.99757	0,5	0.00243
.941	.97502		.97744		.99758		.00242
.942	.97545		.97787		.99758		.00242
.943	.97589		.97830		.99759		.00241
.944	.97633		.97874		.99759		.00241
2.945	0.97676	43,7	0.97917	43,2	9.99760	0,5	0.00240
.946	.97720		.97960		.99760		.00240
.947	.97764		.98003		.99761		.00239
.948	.97807		.98046		.99761		.00239
.949	.97851		.98089		.99762		.00238
2.950	0.97895	43,7	0.98133	43,2	9.99762	0,5	0.00238
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	$\omega F_0'$	log cosh u	$\omega F_0'$	log tanh u	$\omega F_0'$	log coth u
2.950	0.97895	43,7	0.98133	43,2	9.99762	0,5	0.00238
.951	.97938		.98176		.99763		.00237
.952	.97982		.98219		.99763		.00237
.953	.98026		.98262		.99763		.00237
.954	.98069		.98305		.99764		.00236
2.955	0.98113	43,7	0.98349	43,2	9.99764	0,5	0.00236
.956	.98157		.98392		.99765		.00235
.957	.98200		.98435		.99765		.00235
.958	.98244		.98478		.99766		.00234
.959	.98288		.98521		.99766		.00234
2.960	0.98331	43,7	0.98565	43,2	9.99767	0,5	0.00233
.961	.98375		.98608		.99767		.00233
.962	.98419		.98651		.99768		.00232
.963	.98462		.98694		.99768		.00232
.964	.98506		.98737		.99769		.00231
2.965	0.98550	43,7	0.98781	43,2	9.99769	0,5	0.00231
.966	.98593		.98824		.99770		.00230
.967	.98637		.98867		.99770		.00230
.968	.98681		.98910		.99770		.00230
.969	.98724		.98953		.99771		.00229
2.970	0.98768	43,7	0.98997	43,2	9.99771	0,5	0.00229
.971	.98812		.99040		.99772		.00228
.972	.08855		.99083		.99772		.00228
.973	.98899		.99126		.99773		.00227
.974	.98943		.99169		.99773		.00227
2.975	0.98986	43,7	0.99213	43,2	9.99774	0,5	0.00226
.976	.99030		.99256		.99774		.00226
.977	.99074		.99299		.99775		.00225
.978	.99117		.99342		.99775	0,4	.00225
.979	.99161		.99385		.99775		.00225
2.980	0.99205	43,7	0.99429	43,2	9.99776	0,4	0.00224
.981	.99248		.99472		.99776		.00224
.982	.99292		.99515		.99777		.00223
.983	.99336		.99558		.99777		.00223
.984	.99379		.99601		.99778		.00222
2.985	0.99423	43,7	0.99645	43,2	9.99778	0,4	0.00222
.986	.99466		.99688		.99779		.00221
.987	.99510		.99731		.99779		.00221
.988	.99554		.99774		.99779		.00221
.989	.99597		.99818		.99780		.00220
2.990	0.99641	43,6	0.99861	43,2	9.99780	0,4	0.00220
.991	.99685		.99904		.99781		.00219
.992	.99728		.99947		.99781		.00219
.993	.99772		.99990		.99782		.00218
.994	.99816		1.00034		.99782		.00218
2.995	0.99859	43,6	1.00077	43,2	9.99783	0,4	0.00217
.996	.99903		.00120		.99783		.00217
.997	.99947		.00163		.99783		.00217
.998	.99990		.00206		.99784		.00216
.999	1.00034		.00250		.99784		.00216
3.000	1.00078	43,6	1.00293	43,2	9.99785	0,4	0.00215
u	log tan gd u	$\omega F_0'$	log sec gd u	$\omega F_0'$	log sin gd u	$\omega F_0'$	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
3.00	1.00078	436,5	1.00293	432,1	9.99785	4,3	0.00215
.01	.00514	436,4	.00725	432,2	.99789	4,2	.00211
.02	.00950	436,4	.01157	432,2	.99793	4,1	.00207
.03	.01387	436,3	.01589	432,3	.99797	4,1	.00203
.04	.01823	436,3	.02022	432,3	.99801	4,0	.00199
3.05	1.02259	436,2	1.02454	432,4	9.99805	3,9	0.00195
.06	.02696	436,2	.02886	432,4	.99809	3,8	.00191
.07	.03132	436,2	.03319	432,4	.99813	3,7	.00187
.08	.03568	436,1	.03751	432,5	.99817	3,7	.00183
.09	.04004	436,1	.04184	432,5	.99820	3,6	.00180
3.10	1.04440	436,1	1.04616	432,5	9.99824	3,5	0.00176
.11	.04876	436,0	.05049	432,6	.99827	3,4	.00173
.12	.05312	436,0	.05481	432,6	.99831	3,4	.00169
.13	.05748	436,0	.05914	432,6	.99834	3,3	.00166
.14	.06184	435,9	.06347	432,7	.99837	3,3	.00163
3.15	1.06620	435,9	1.06779	432,7	9.99841	3,2	0.00159
.16	.07056	435,9	.07212	432,7	.99844	3,1	.00156
.17	.07492	435,8	.07645	432,8	.99847	3,1	.00153
.18	.07927	435,8	.08078	432,8	.99850	3,0	.00150
.19	.08363	435,8	.08510	432,8	.99853	2,9	.00147
3.20	1.08799	435,7	1.08943	432,9	9.99856	2,9	0.00144
.21	.09235	435,7	.09376	432,9	.99859	2,8	.00141
.22	.09670	435,7	.09809	432,9	.99861	2,8	.00139
.23	.10106	435,7	.10242	432,9	.99864	2,7	.00136
.24	.10542	435,6	.10675	433,0	.99867	2,7	.00133
3.25	1.10977	435,6	1.11108	433,0	9.99869	2,6	0.00131
.26	.11413	435,6	.11541	433,0	.99872	2,6	.00128
.27	.11849	435,6	.11974	433,0	.99875	2,5	.00125
.28	.12284	435,5	.12407	433,1	.99877	2,5	.00123
.29	.12720	435,5	.12840	433,1	.99879	2,4	.00121
3.30	1.13155	435,5	1.13273	433,1	9.99882	2,4	0.00118
.31	.13591	435,5	.13706	433,1	.99884	2,3	.00116
.32	.14026	435,4	.14139	433,2	.99886	2,3	.00114
.33	.14461	435,4	.14573	433,2	.99889	2,2	.00111
.34	.14897	435,4	.15006	433,2	.99891	2,2	.00109
3.35	1.15332	435,4	1.15439	433,2	9.99893	2,1	0.00107
.36	.15768	435,3	.15872	433,2	.99895	2,1	.00105
.37	.16203	435,3	.16306	433,3	.99897	2,1	.00103
.38	.16638	435,3	.16739	433,3	.99899	2,0	.00101
.39	.17073	435,3	.17172	433,3	.99901	2,0	.00099
3.40	1.17509	435,3	1.17605	433,3	9.99903	1,9	0.00097
.41	.17944	435,2	.18039	433,3	.99905	1,9	.00095
.42	.18379	435,2	.18472	433,4	.99907	1,9	.00093
.43	.18814	435,2	.18906	433,4	.99909	1,8	.00091
.44	.19250	435,2	.19339	433,4	.99911	1,8	.00089
3.45	1.19685	435,2	1.19772	433,4	9.99912	1,8	0.00088
.46	.20120	435,2	.20206	433,4	.99914	1,7	.00086
.47	.20555	435,1	.20639	433,5	.99916	1,7	.00084
.48	.20990	435,1	.21073	433,5	.99918	1,6	.00082
.49	.21425	435,1	.21506	433,5	.99919	1,6	.00081
3.50	1.21860	435,1	1.21940	433,5	9.99921	1,6	0.00079
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
3.50	1.21860	435,1	1.21940	433,5	9.99921	1,6	0.00079
.51	.22296		.22373		.99922		.00078
.52	.22731		.22807		.99924	1,5	.00076
.53	.23166	435,0	.23240		.99925		.00075
.54	.23601		.23674	433,6	.99927		.00073
3.55	1.24036	435,0	1.24107	433,6	9.99928	1,4	0.00072
.56	.24471		.24541		.99930		.00070
.57	.24906		.24975		.99931		.00069
.58	.25341		.25408		.99933	1,3	.00067
.59	.25776		.25842		.99934		.00066
3.60	1.26211	434,9	1.26275	433,6	9.99935	1,3	0.00065
.61	.26646		.26709	433,7	.99936		.00064
.62	.27080		.27143		.99938	1,2	.00062
.63	.27515		.27576		.99939		.00061
.64	.27950		.28010		.99940		.00060
3.65	1.28385	434,9	1.28444	433,7	9.99941	1,2	0.00059
.66	.28820		.28878		.99942		.00058
.67	.29255		.29311		.99944	1,1	.00056
.68	.29690	434,8	.29745		.99945		.00055
.69	.30125		.30179	433,8	.99946		.00054
3.70	1.30559	434,8	1.30612	433,8	9.99947	1,1	0.00053
.71	.30994		.31046		.99948	1,0	.00052
.72	.31429		.31480		.99949		.00051
.73	.31864		.31914		.99950		.00050
.74	.32299		.32348		.99951		.00049
3.75	1.32733	434,8	1.32781	433,8	9.99952	1,0	0.00048
.76	.33168		.33215		.99953	0,9	.00047
.77	.33603		.33649		.99954		.00046
.78	.34038	434,7	.34083		.99955		.00045
.79	.34472		.34517	433,9	.99956		.00044
3.80	1.34907	434,7	1.34951	433,9	9.99957	0,9	0.00043
.81	.35342		.35384		.99957		.00043
.82	.35777		.35818		.99958	0,8	.00042
.83	.36211		.36252		.99959		.00041
.84	.36646		.36686		.99960		.00040
3.85	1.37081	434,7	1.37120	433,9	9.99961	0,8	0.00039
.86	.37515		.37554		.99961		.00039
.87	.37950		.37988		.99962		.00038
.88	.38385		.38422		.99963	0,7	.00037
.89	.38819		.38856		.99964		.00036
3.90	1.39254	434,7	1.39290	433,9	9.99964	0,7	0.00036
.91	.39689	434,6	.39724		.99965		.00035
.92	.40123		.40158	434,0	.99966		.00034
.93	.40558		.40591		.99966		.00034
.94	.40993		.41025		.99967		.00033
3.95	1.41427	434,6	1.41459	434,0	9.99968	0,6	0.00032
.96	.41862		.41893		.99968		.00032
.97	.42296		.42327		.99969		.00031
.98	.42731		.42761		.99970		.00030
.99	.43166		.43195		.99970		.00030
4.00	1.43600	434,6	1.43629	434,0	9.99971	0,6	0.00029
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
4.00	1.43600	434,6	1.43629	434,0	9.99971	0,6	0.00029
.01	.44035		.44063		.99971		.00029
.02	.44469		.44497		.99972		.00028
.03	.44904		.44931		.99973	0,5	.00027
.04	.45339		.45365		.99973		.00027
4.05	1.45773	434,6	1.45799	434,0	9.99974	0,5	0.00026
.06	.46208		.46233		.99974		.00026
.07	.46642	434,5	.46668		.99975		.00025
.08	.47077		.47102		.99975		.00025
.09	.47511		.47536	434,1	.99976		.00024
4.10	1.47946	434,5	1.47970	434,1	9.99976	0,5	0.00024
.11	.48380		.48404		.99977		.00023
.12	.48815		.48838		.99977		.00023
.13	.49249		.49272		.99978	0,4	.00022
.14	.49684		.49706		.99978		.00022
4.15	1.50118	434,5	1.50140	434,1	9.99978	0,4	0.00022
.16	.50553		.50574		.99979		.00021
.17	.50987		.51008		.99979		.00021
.18	.51422		.51442		.99980		.00020
.19	.51856		.51876		.99980		.00020
4.20	1.52291	434,5	1.52310	434,1	9.99980	0,4	0.00020
.21	.52725		.52745		.99981		.00019
.22	.53160		.53179		.99981		.00019
.23	.53594		.53613		.99982		.00018
.24	.54029		.54047		.99982		.00018
4.25	1.54463	434,5	1.54481	434,1	9.99982	0,4	0.00018
.26	.54898		.54915		.99983	0,3	.00017
.27	.55332		.55349		.99983		.00017
.28	.55767		.55783		.99983		.00017
.29	.56201		.56217		.99984		.00016
4.30	1.56636	434,5	1.56652	434,1	9.99984	0,3	0.00016
.31	.57070		.57086		.99984		.00016
.32	.57505	434,4	.57520		.99985		.00015
.33	.57939		.57954		.99985		.00015
.34	.58373		.58388		.99985		.00015
4.35	1.58808	434,4	1.58822	434,1	9.99986	0,3	0.00014
.36	.59242		.59256	434,2	.99986		.00014
.37	.59677		.59691		.99986		.00014
.38	.60111		.60125		.99986		.00014
.39	.60546		.60559		.99987		.00013
4.40	1.60980	434,4	1.60993	434,2	9.99987	0,3	0.00013
.41	.61414		.61427		.99987		.00013
.42	.61849		.61861		.99987		.00013
.43	.62283		.62296		.99988	0,2	.00012
.44	.62718		.62730		.99988		.00012
4.45	1.63152	434,4	1.63164	434,2	9.99988	0,2	0.00012
.46	.63587		.63598		.99988		.00012
.47	.64021		.64032		.99989		.00011
.48	.64455		.64467		.99989		.00011
.49	.64890		.64901		.99989		.00011
4.50	1.65324	434,4	1.65335	434,2	9.99989	0,2	0.00011
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
4.50	1.65324	434,4	1.65335	434,2	9.99989	0,2	0.00011
.51	.65759		.65769		.99989		.00011
.52	.66193		.66203		.99990		.00010
.53	.66627		.66637		.99990		.00010
.54	.67062		.67072		.99990		.00010
4.55	1.67496	434,4	1.67506	434,2	9.99990	0,2	0.00010
.56	.67931		.67940		.99990		.00010
.57	.68365		.68374		.99991		.00009
.58	.68799		.68808		.99991		.00009
.59	.69234		.69243		.99991		.00009
4.60	1.69668	434,4	1.69677	434,2	9.99991	0,2	0.00009
.61	.70102		.70111		.99991		.00009
.62	.70537		.70545		.99992		.00008
.63	.70971		.70979		.99992		.00008
.64	.71406		.71414		.99992		.00008
4.65	1.71840	434,4	1.71848	434,2	9.99992	0,2	0.00008
.66	.72274		.72282		.99992		.00008
.67	.72709		.72716		.99992		.00008
.68	.73143		.73151		.99993	0,1	.00007
.69	.73577		.73585		.99993		.00007
4.70	1.74012	434,4	1.74019	434,2	9.99993	0,1	0.00007
.71	.74446		.74453		.99993		.00007
.72	.74881		.74887		.99993		.00007
.73	.75315		.75322		.99993		.00007
.74	.75749		.75756		.99993		.00007
4.75	1.76184	434,4	1.76190	434,2	9.99993	0,1	0.00007
.76	.76618		.76624		.99994		.00006
.77	.77052		.77059		.99994		.00006
.78	.77487		.77493		.99994		.00006
.79	.77921		.77927		.99994		.00006
4.80	1.78355	434,4	1.78361	434,2	9.99994	0,1	0.00006
.81	.78790		.78796		.99994		.00006
.82	.79224		.79230		.99994		.00006
.83	.79658	434,3	.79664		.99994		.00006
.84	.80093		.80098		.99995		.00005
4.85	1.80527	434,3	1.80532	434,2	9.99995	0,1	0.00005
.86	.80962		.80967		.99995		.00005
.87	.81396		.81401		.99995		.00005
.88	.81830		.81835		.99995		.00005
.89	.82265		.82269		.99995		.00005
4.90	1.82699	434,3	1.82704	434,2	9.99995	0,1	0.00005
.91	.83133		.83138		.99995		.00005
.92	.83568		.83572		.99995		.00005
.93	.84002		.84006		.99995		.00005
.94	.84436		.84441	434,3	.99996		.00004
4.95	1.84871	434,3	1.84875	434,3	9.99996	0,1	0.00004
.96	.85305		.85309		.99996		.00004
.97	.85739		.85743		.99996		.00004
.98	.86174		.86178		.99996		.00004
.99	.86608		.86612		.99996		.00004
5.00	1.87042	434,3	1.87046	434,3	9.99996	0,1	0.00004
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

u	log sinh u	ω F_0'	log cosh u	ω F_0'	log tanh u	ω F_0'	log coth u
5.00	1.87042	434,3	1.87046	434,3	9.99996	0,1	0.00004
.01	.87477		.87480		.99996		.00004
.02	.87911		.87915		.99996		.00004
.03	.88345		.88349		.99996		.00004
.04	.88780		.88783		.99996		.00004
5.05	1.89214	434,3	1.89217	434,3	9.99996	0,1	0.00004
.06	.89648		.89652		.99997		.00003
.07	.90083		.90086		.99997		.00003
.08	.90517		.90520		.99997		.00003
.09	.90951		.90955		.99997		.00003
5.10	1.91386	434,3	1.91389	434,3	9.99997	0,1	0.00003
.11	.91820		.91823		.99997		.00003
.12	.92254		.92257		.99997		.00003
.13	.92689		.92692		.99997		.00003
.14	.93123		.93126		.99997		.00003
5.15	1.93557	434,3	1.93560	434,3	9.99997	0,1	0.00003
.16	.93992		.93994		.99997		.00003
.17	.94426		.94429		.99997		.00003
.18	.94860		.94863		.99997		.00003
.19	.95294		.95297		.99997		.00003
5.20	1.95729	434,3	1.95731	434,3	9.99997	0,1	0.00003
.21	.96163		.96166		.99997		.00003
.22	.96597		.96600		.99997		.00003
.23	.97032		.97034		.99998	0,0	.00002
.24	.97466		.97469		.99998		.00002
5.25	1.97900	434,3	1.97903	434,3	9.99998	0,0	0.00002
.26	.98335		.98337		.99998		.00002
.27	.98769		.98771		.99998		.00002
.28	.99203		.99206		.99998		.00002
.29	.99638		.99640		.99998		.00002
5.30	2.00072	434,3	2.00074	434,3	9.99998	0,0	0.00002
.31	.00506		.00508		.99998		.00002
.32	.00941		.00943		.99998		.00002
.33	.01375		.01377		.99998		.00002
.34	.01809		.01811		.99998		.00002
5.35	2.02244	434,3	2.02246	434,3	9.99998	0,0	0.00002
.36	.02678		.02680		.99998		.00002
.37	.03112		.03114		.99998		.00002
.38	.03547		.03548		.99998		.00002
.39	.03981		.03983		.99998		.00002
5.40	2.04415	434,3	2.04417	434,3	9.99998	0,0	0.00002
.41	.04849		.04851		.99998		.00002
.42	.05284		.05285		.99998		.00002
.43	.05718		.05720		.99998		.00002
.44	.06152		.06154		.99998		.00002
5.45	2.06587	434,3	2.06588	434,3	9.99998	0,0	0.00002
.46	.07021		.07023		.99998		.00002
.47	.07455		.07457		.99998		.00002
.48	.07890		.07891		.99998		.00002
.49	.08324		.08325		.99999		.00001
5.50	2.08758	434,3	2.08760	434,3	9.99999	0,0	0.00001
u	log tan gd u	ω F_0'	log sec gd u	ω F_0'	log sin gd u	ω F_0'	log csc gd u

u	log sinh u	ω F₀′	log cosh u	ω F₀′	log tanh u	ω F₀′	log coth u
5.50	2.08758	434,3	2.08760	434,3	9.99999	0,0	0.00001
.51	.09193		.09194		.99999		.00001
.52	.09627		.09628		.99999		.00001
.53	.10061		.10063		.99999		.00001
.54	.10495		.10497		.99999		.00001
5.55	2.10930	434,3	2.10931	434,3	9.99999	0,0	0.00001
.56	.11364		.11365		.99999		.00001
.57	.11798		.11800		.99999		.00001
.58	.12233		.12234		.99999		.00001
.59	.12667		.12668		.99999		.00001
5.60	2.13101	434,3	2.13103	434,3	9.99999	0,0	0.00001
.61	.13536		.13537		.99999		.00001
.62	.13970		.13971		.99999		.00001
.63	.14404		.14405		.99999		.00001
.64	.14839		.14840		.99999		.00001
5.65	2.15273	434,3	2.15274	434,3	9.99999	0,0	0.00001
.66	.15707		.15708		.99999		.00001
.67	.16141		.16142		.99999		.00001
.68	.16576		.16577		.99999		.00001
.69	.17010		.17011		.99999		.00001
5.70	2.17444	434,3	2.17445	434,3	9.99999	0,0	0.00001
.71	.17879		.17880		.99999		.00001
.72	.18313		.18314		.99999		.00001
.73	.18747		.18748		.99999		.00001
.74	.19182		.19182		.99999		.00001
5.75	2.19616	434,3	2.19617	434,3	9.99999	0,0	0.00001
.76	.20050		.20051		.99999		.00001
.77	.20484		.20485		.99999		.00001
.78	.20919		.20920		.99999		.00001
.79	.21353		.21354		.99999		.00001
5.80	2.21787	434,3	2.21788	434,3	9.99999	0,0	0.00001
.81	.22222		.22222		.99999		.00001
.82	.22656		.22657		.99999		.00001
.83	.23090		.23091		.99999		.00001
.84	.23525		.23525		.99999		.00001
5.85	2.23959	434,3	2.23960	434,3	9.99999	0,0	0.00001
.86	.24393		.24394		.99999		.00001
.87	.24828		.24828		.99999		.00001
.88	.25262		.25262		.99999		.00001
.89	.25696		.25697		.99999		.00001
5.90	2.26130	434,3	2.26131	434,3	9.99999	0,0	0.00001
.91	.26565		.26565		.99999		.00001
.92	.26999		.27000		.99999		.00001
.93	.27433		.27434		.99999		.00001
.94	.27868		.27868		.99999		.00001
5.95	2.28302	434,3	2.28303	434,3	9.99999	0,0	0.00001
.96	.28736		.28737		.99999		.00001
.97	.29171		.29171		.99999		.00001
.98	.29605		.29605		.99999		.00001
.99	.30039		.30040		.99999		.00001
6.00	2.30473	434,3	2.30474	434,3	9.99999	0,0	0.00001
u	log tan gd u	ω F₀′	log sec gd u	ω F₀′	log sin gd u	ω F₀′	log csc gd u

TABLE II

NATURAL HYPERBOLIC FUNCTIONS

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0000	0.00000	10,0	1.00000	0,0	0.00000	10,0	∞	∞
.0001	.00010		.00000		.00010		10000.00	1000000,0
.0002	.00020		.00000		.00020		5000.00	250000,0
.0003	.00030		.00000		.00030		3333.33	111111,1
.0004	.00040		.00000		.00040		2500.00	62500,0
0.0005	0.00050	10,0	1.00000	0,0	0.00050	10,0	2000.00	40000,0
.0006	.00060		.00000		.00060		1666.67	27777,8
.0007	.00070		.00000		.00070		1428.57	20408,2
.0008	.00080		.00000		.00080		1250.00	15625,0
.0009	.00090		.00000		.00090		1111.11	12345,7
0.0010	0.00100	10,0	1.00000	0,0	0.00100	10,0	1000.00	10000,0
.0011	.00110		.00000		.00110		909.09	8264,5
.0012	.00120		.00000		.00120		833.33	6944,4
.0013	.00130		.00000		.00130		769.23	5917,2
.0014	.00140		.00000		.00140		714.29	5102,0
0.0015	0.00150	10,0	1.00000	0,0	0.00150	10,0	666.67	4444,4
.0016	.00160		.00000		.00160		625.00	3906,2
.0017	.00170		.00000		.00170		588.24	3460,2
.0018	.00180		.00000		.00180		555.56	3086,4
.0019	.00190		.00000		.00190		526.32	2770,1
0.0020	0.00200	10,0	1.00000	0,0	0.00200	10,0	500.00	2500,0
.0021	.00210		.00000		.00210		476.19	2267,6
.0022	.00220		.00000		.00220		454.55	2066,1
.0023	.00230		.00000		.00230		434.78	1890,4
.0024	.00240		.00000		.00240		416.67	1736,1
0.0025	0.00250	10,0	1.00000	0,0	0.00250	10,0	400.00	1600,0
.0026	.00260		.00000		.00260		384.62	1479,3
.0027	.00270		.00000		.00270		370.37	1371,7
.0028	.00280		.00000		.00280		357.14	1275,5
.0029	.00290		.00000		.00290		344.83	1189,1
0.0030	0.00300	10,0	1.00000	0,0	0.00300	10,0	333.33	1111,1
.0031	.00310		.00000		.00310		322.58	1040,6
.0032	.00320		.00001		.00320		312.50	976,6
.0033	.00330		.00001		.00330		303.03	918,3
.0034	.00340		.00001		.00340		294.12	865,1
0.0035	0.00350	10,0	1.00001	0,0	0.00350	10,0	285.72	816,3
.0036	.00360		.00001		.00360		277.78	771,6
.0037	.00370		.00001		.00370		270.27	730,5
.0038	.00380		.00001		.00380		263.16	692,5
.0039	.00390		.00001		.00390		256.41	657,5
0.0040	0.00400	10,0	1.00001	0,0	0.00400	10,0	250.00	625,0
.0041	.00410		.00001		.00410		243.90	594,9
.0042	.00420		.00001		.00420		238.10	566,9
.0043	.00430		.00001		.00430		232.56	540,8
.0044	.00440		.00001		.00440		227.27	516,5
0.0045	0.00450	10,0	1.00001	0,0	0.00450	10,0	222.22	493,8
.0046	.00460		.00001		.00460		217.39	472,6
.0047	.00470		.00001		.00470		212.77	452,7
.0048	.00480		.00001		.00480		208.33	434,0
.0049	.00490		.00001		.00490		204.08	416,5
0.0050	0.00500	10,0	1.00001	0,1	0.00500	10,0	200.00	400,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
0.0050	0.00500	10,0	1.00001	0,1	0.00500	10,0	200.00	400,0
.0051	.00510		.00001		.00510		196.08	384,5
.0052	.00520		.00001		.00520		192.31	369,8
.0053	.00530		.00001		.00530		188.68	356,0
.0054	.00540		.00001		.00540		185.19	342,9
0.0055	0.00550	10,0	1.00002	0,1	0.00550	10,0	181.82	330,6
.0056	.00560		.00002		.00560		178.57	318,9
.0057	.00570		.00002		.00570		175.44	307,8
.0058	.00580		.00002		.00580		172.42	297,3
.0059	.00590		.00002		.00590		169.49	287,3
0.0060	0.00600	10,0	1.00002	0,1	0.00600	10,0	166.67	277,8
.0061	.00610		.00002		.00610		163.94	268,7
.0062	.00620		.00002		.00620		161.29	260,1
.0063	.00630		.00002		.00630		158.73	251,9
.0064	.00640		.00002		.00640		156.25	244,1
0.0065	0.00650	10,0	1.00002	0,1	0.00650	10,0	153.85	236,7
.0066	.00660		.00002		.00660		151.52	229,6
.0067	.00670		.00002		.00670		149.26	222,8
.0068	.00680		.00002		.00680		147.06	216,3
.0069	.00690		.00002		.00690		144.93	210,0
0.0070	0.00700	10,0	1.00002	0,1	0.00700	10,0	142.86	204,1
.0071	.00710		.00003		.00710		140.85	198,4
.0072	.00720		.00003		.00720		138.89	192,9
.0073	.00730		.00003		.00730		136.99	187,6
.0074	.00740		.00003		.00740		135.14	182,6
0.0075	0.00750	10,0	1.00003	0,1	0.00750	10,0	133.34	177,8
.0076	.00760		.00003		.00760		131.58	173,1
.0077	.00770		.00003		.00770		129.87	168,7
.0078	.00780		.00003		.00780		128.21	164,4
.0079	.00790		.00003		.00790		126.58	160,2
0.0080	0.00800	10,0	1.00003	01,	0.00800	10,0	125.00	156,2
.0081	.00810		.00003		.00810		123.46	152,4
.0082	.00820		.00003		.00820		121.95	148,7
.0083	.00830		.00003		.00830		120.48	145,2
.0084	.00840		.00004		.00840		119.05	141,7
0.0085	0.00850	10,0	1.00004	0,1	0.00850	10,0	117.65	138,4
.0086	.00860		.00004		.00860		116.28	135,2
.0087	.00870		.00004		.00870		114.95	132,1
.0088	.00880		.00004		.00880		113.64	129,1
.0089	.00890		.00004		.00890		112.36	126,2
0.0090	0.00900	10,0	1.00004	0,1	0.00900	10,0	111.11	123,5
.0091	.00910		.00004		.00910		109.89	120,8
.0092	.00920		.00004		.00920		108.70	118,1
.0093	.00930		.00004		.00930		107.53	115,6
.0094	.00940		.00004		.00940		106.39	113,2
0.0095	0.00950	10,0	1.00005	0,1	0.00950	10,0	105.27	110,8
.0096	.00960		.00005		.00960		104.17	108,5
.0097	.00970		.00005		.00970		103.10	106,3
.0098	.00980		.00005		.00980		102.04	104,1
.0099	.00990		.00005		.00990		101.01	102,0
0.0100	0.01000	10,0	1.00005	0,1	0.01000	10,0	100.00	100,0
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0100	0.01000	10,0	1.00005	0,1	0.01000	10,0	100.003	1000,0
.0101	.01010		.00005		.01010		99.013	980,3
.0102	.01020		.00005		.01020		98.043	961,1
.0103	.01030		.00005		.01030		97.091	942,6
.0104	.01040		.00005		.01040		96.157	924,5
0.0105	0.01050	10,0	1.00006	0,1	0.01050	10,0	95.242	907,0
.0106	.01060		.00006		.01060		94.343	890,0
.0107	.01070		.00006		.01070		93.462	873,4
.0108	.01080		.00006		.01080		92.596	857,3
.0109	.01090		.00006		.01090		91.747	841,6
0.0110	0.01100	10,0	1.00006	0,1	0.01100	10,0	90.913	826,4
.0111	.01110		.00006		.01110		90.094	811,6
.0112	.01120		.00006		.01120		89.289	797,2
.0113	.01130		.00006		.01130		88.499	783,1
.0114	.01140		.00006		.01140		87.723	769,4
0.0115	0.01150	10,0	1.00007	0,1	0.01150	10,0	86.960	756,1
.0116	.01160		.00007		.01160		86.211	743,1
.0117	.01170		.00007		.01170		85.474	730,5
.0118	.01180		.00007		.01180		84.750	718,2
.0119	.01190		.00007		.01190		84.038	706,1
0.0120	0.01200	10,0	1.00007	0,1	0.01200	10,0	83.337	694,4
.0121	.01210		.00007		.01210		82.649	683,0
.0122	.01220		.00007		.01220		81.971	671,8
.0123	.01230		.00008		.01230		81.305	660,9
.0124	.01240		.00008		.01240		80.649	650,3
0.0125	0.01250	10,0	1.00008	0,1	0.01250	10,0	80.004	640,0
.0126	.01260		.00008		.01260		79.369	629,8
.0127	.01270		.00008		.01270		78.744	620,0
.0128	.01280		.00008		.01280		78.129	610,3
.0129	.01290		.00008		.01290		77.524	600,9
0.0130	0.01300	10,0	1.00008	0,1	0.01300	10,0	76.927	591,7
.0131	.01310		.00009		.01310		76.340	582,7
.0132	.01320		.00009		.01320		75.762	573,9
.0133	.01330		.00009		.01330		75.192	565,3
.0134	.01340		.00009		.01340		74.631	556,9
0.0135	0.01350	10,0	1.00009	0,1	0.01350	10,0	74.079	548,7
.0136	.01360		.00009		.01360		73.534	540,6
.0137	.01370		.00009		.01370		72.997	532,8
.0138	.01380		.00010		.01380		72.468	525,1
.0139	.01390		.00010		.01390		71.947	517,5
0.0140	0.01400	10,0	1.00010	0,1	0.01400	10,0	71.433	510,2
.0141	.01410		.00010		.01410		70.927	503,0
.0142	.01420		.00010		.01420		70.427	495,9
.0143	.01430		.00010		.01430		69.935	489,0
.0144	.01440		.00010		.01440		69.449	482,2
0.0145	0.01450	10,0	1.00011	0,1	0.01450	10,0	68.970	475,6
.0146	.01460		.00011		.01460		68.498	469,1
.0147	.01470		.00011		.01470		68.032	462,7
.0148	.01480		.00011		.01480		67.573	456,5
.0149	.01490		.00011		.01490		67.119	450,4
0.0150	0.01500	10,0	1.00011	0,2	0.01500	10,0	66.672	444,4
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0150	0.01500	10,0	1.00011	0,2	0.01500	10,0	66.672	444,4
.0151	.01510		.00011		.01510		66.230	438,5
.0152	.01520		.00012		.01520		65.795	432,8
.0153	.01530		.00012		.01530		65.365	427,2
.0154	.01540		.00012		.01540		64.940	421,6
0.0155	0.01550	10,0	1.00012	0,2	0.01550	10,0	64.521	416,2
.0156	.01560		.00012		.01560		64.108	410,9
.0157	.01570		.00012		.01570		63.699	405,7
.0158	.01580		.00012		.01580		63.296	400,5
.0159	.01590		.00013		.01590		62.898	395,5
0.0160	0.01600	10,0	1.00013	0,2	0.01600	10,0	62.505	390,6
.0161	.01610		.00013		.01610		62.117	385,8
.0162	.01620		.00013		.01620		61.734	381,0
.0163	.01630		.00013		.01630		61.355	376,3
.0164	.01640		.00013		.01640		60.981	371,8
0.0165	0.01650	10,0	1.00014	0,2	0.01650	10,0	60.612	367,3
.0166	.01660		.00014		.01660		60.247	362,9
.0167	.01670		.00014		.01670		59.886	358,5
.0168	.01680		.00014		.01680		59.529	354,3
.0169	.01690		.00014		.01690		59.177	350,1
0.0170	0.01700	10,0	1.00014	0,2	0.01700	10,0	58.829	346,0
.0171	.01710		.00015		.01710		58.485	342,0
.0172	.01720		.00015		.01720		58.145	338,0
.0173	.01730		.00015		.01730		57.809	334,1
.0174	.01740		.00015		.01740		57.477	330,3
0.0175	0.01750	10,0	1.00015	0,2	0.01750	10,0	57.149	326,5
.0176	.01760		.00015		.01760		56.824	322,8
.0177	.01770		.00016		.01770		56.503	319,2
.0178	.01780		.00016		.01780		56.186	315,6
.0179	.01790		.00016		.01790		55.872	312,1
0.0180	0.01800	10,0	1.00016	0,2	0.01800	10,0	55.562	308,6
.0181	.01810		.00016		.01810		55.255	305,2
.0182	.01820		.00017		.01820		54.951	301,9
.0183	.01830		.00017		.01830		54.651	298,6
.0184	.01840		.00017		.01840		54.354	295,3
0.0185	0.01850	10,0	1.00017	0,2	0.01850	10,0	54.060	292,2
.0186	.01860		.00017		.01860		53.770	289,0
.0187	.01870		.00017		.01870		53.482	285,9
.0188	.01880		.00018		.01880		53.198	282,9
.0189	.01890		.00018		.01890		52.916	279,9
0.0190	0.01900	10,0	1.00018	0,2	0.01900	10,0	52.638	277,0
.0191	.01910		.00018		.01910		52.362	274,1
.0192	.01920		.00018		.01920		52.090	271,2
.0193	.01930		.00019		.01930		51.820	268,4
.0194	.01940		.00019		.01940		51.553	265,7
0.0195	0.01950	10,0	1.00019	0,2	0.01950	10,0	51.289	263,0
.0196	.01960		.00019		.01960		51.027	260,3
.0197	.01970		.00019		.01970		50.768	257,6
.0198	.01980		.00020		.01980		50.512	255,0
.0199	.01990		.00020		.01990		50.258	252,5
0.0200	0.02000	10,0	1.00020	0,2	0.02000	10,0	50.007	250,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0200	0.02000	10,0	1.00020	0,2	0.02000	10,0	50.007	250,0
.0201	.02010		.00020		.02010		49.758	247,5
.0202	.02020		.00020		.02020		49.512	245,0
.0203	.02030		.00021		.02030		49.268	242,6
.0204	.02040		.00021		.02040		49.026	240,3
0.0205	0.02050	10,0	1.00021	0,2	0.02050	10,0	48.787	237,9
.0206	.02060		.00021		.02060		48.551	235,6
.0207	.02070		.00021		.02070		48.316	233,3
.0208	.02080		.00022		.02080		48.084	231,1
.0209	.02090		.00022		.02090		47.854	228,9
0.0210	0.02100	10,0	1.00022	0,2	0.02100	10,0	47.626	226,7
.0211	.02110		.00022		.02110		47.400	224,6
.0212	.02120		.00022		.02120		47.177	222,5
.0213	.02130		.00023		.02130		46.955	220,4
.0214	.02140		.00023		.02140		46.736	218,3
0.0215	0.02150	10,0	1.00023	0,2	0.02150	10,0	46.519	216,3
.0216	.02160		.00023		.02160		46.303	214,3
.0217	.02170		.00024		.02170		46.090	212,3
.0218	.02180		.00024		.02180		45.879	210,4
.0219	.02190		.00024		.02190		45.669	208,5
0.0220	0.02200	10,0	1.00024	0,2	0.02200	10,0	45.462	206,6
.0221	.02210		.00024		.02210		45.256	204,7
.0222	.02220		.00025		.02220		45.052	202,9
.0223	.02230		.00025		.02230		44.850	201,1
.0224	.02240		.00025		.02240		44.650	199,3
0.0225	0.02250	10,0	1.00025	0,2	0.02250	10,0	44.452	197,5
.0226	.02260		.00026		.02260		44.255	195,7
.0227	.02270		.00026		.02270		44.060	194,0
.0228	.02280		.00026		.02280		43.867	192,3
.0229	.02290		.00026		.02290		43.676	190,7
0.0230	0.02300	10,0	1.00026	0,2	0.02300	10,0	43.486	189,0
.0231	.02310		.00027		.02310		43.298	187,4
.0232	.02320		.00027		.02320		43.111	185,8
.0233	.02330		.00027		.02330		42.926	184,2
.0234	.02340		.00027		.02340		42.743	182,6
0.0235	0.02350	10,0	1.00028	0,2	0.02350	10,0	42.561	181,1
.0236	.02360		.00028		.02360		42.381	179,5
.0237	.02370		.00028		.02370		42.202	178,0
.0238	.02380		.00028		.02380		42.025	176,5
.0239	.02390		.00029		.02390		41.849	175,0
0.0240	0.02400	10,0	1.00029	0,2	0.02400	10,0	41.675	173,6
.0241	.02410		.00029		.02410		41.502	172,1
.0242	.02420		.00029		.02420		41.330	170,7
.0243	.02430		.00030		.02430		41.160	169,3
.0244	.02440		.00030		.02440		40.992	167,9
0.0245	0.02450	10,0	1.00030	0,2	0.02450	10,0	40.824	166,6
.0246	.02460		.00030		.02460		40.659	165,2
.0247	.02470		.00031		.02469		40.494	163,9
.0248	.02480		.00031		.02479		40.331	162,6
.0249	.02490		.00031		.02489		40.169	161,3
0.0250	0.02500	10,0	1.00031	0,3	0.02499	10,0	40.008	160,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
0.0250	0.02500	10,0	1.00031	0,3	0.02499	10,0	40.008	160,0
.0251	.02510		.00032		.02509		39.849	158,7
.0252	.02520		.00032		.02519		39.691	157,4
.0253	.02530		.00032		.02529		39.534	156,2
.0254	.02540		.00032		.02539		39.379	155,0
0.0255	0.02550	10,0	1.00033	0,3	0.02549	10,0	39.224	153,8
.0256	.02560		.00033		.02559		39.071	152,6
.0257	.02570		.00033		.02569		38.919	151,4
.0258	.02580		.00033		.02579		38.768	150,2
.0259	.02590		.00034		.02589		38.619	149,0
0.0260	0.02600	10,0	1.00034	0,3	0.02599	10,0	38.470	147,9
.0261	.02610		.00034		.02609		38.323	146,8
.0262	.02620		.00034		.02619		38.177	145,7
.0263	.02630		.00035		.02629		38.032	144,5
.0264	.02640		.00035		.02639		37.888	143,4
0.0265	0.02650	10,0	1.00035	0,3	0.02649	10,0	37.745	142,4
.0266	.02660		.00035		.02659		37.603	141,3
.0267	.02670		.00036		.02669		37.462	140,2
.0268	.02680		.00036		.02679		37.322	139,2
.0269	.02690		.00036		.02689		37.184	138,2
0.0270	0.02700	10,0	1.00036	0,3	0.02699	10,0	37.046	137,1
.0271	.02710		.00037		.02709		36.909	136,1
.0272	.02720		.00037		.02719		36.774	135,1
.0273	.02730		.00037		.02729		36.639	134,1
.0274	.02740		.00038		.02739		36.505	133,2
0.0275	0.02750	10,0	1.00038	0,3	0.02749	10,0	36.373	132,2
.0276	.02760		.00038		.02759		36.241	131,2
.0277	.02770		.00038		.02769		36.110	130,3
.0278	.02780		.00039		.02779		35.980	129,4
.0279	.02790		.00039		.02789		35.852	128,4
0.0280	0.02800	10,0	1.00039	0,3	0.02799	10,0	35.724	127,5
.0281	.02810		.00039		.02809		35.597	126,6
.0282	.02820		.00040		.02819		35.470	125,7
.0283	.02830		.00040		.02829		35.345	124,8
.0284	.02840		.00040		.02839		35.221	124,0
0.0285	0.02850	10,0	1.00041	0,3	0.02849	10,0	35.097	123,2
.0286	.02860		.00041		.02859		34.975	122,2
.0287	.02870		.00041		.02869		34.853	121,4
.0288	.02880		.00041		.02879		34.732	120,5
.0289	.02890		.00042		.02889		34.612	119,7
0.0290	0.02900	10,0	1.00042	0,3	0.02899	10,0	34.492	118,9
.0291	.02910		.00042		.02909		34.374	118,1
.0292	.02920		.00043		.02919		34.256	117,2
.0293	.02930		.00043		.02929		34.139	116,4
.0294	.02940		.00043		.02939		34.023	115,7
0.0295	0.02950	10,0	1.00044	0,3	0.02949	10,0	33.908	114,9
.0296	.02960		.00044		.02959		33.794	114,1
.0297	.02970		.00044		.02969		33.680	113,3
.0298	.02980		.00044		.02979		33.567	112,6
.0299	.02990		.00045		.02989		33.455	111,8
0.0300	0.03000	10,0	1.00045	0,3	0.02999	10,0	33.343	111,1
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀'	cosh u	ω F₀'	tanh u	ω F₀'	coth u	ω F₀'
0.0300	0.03000	10,0	1.00045	0,3	0.02999	10,0	33.343	111,1
.0301	.03010		.00045		.03009		33.233	110,3
.0302	.03020		.00046		.03019		33.123	109,6
.0303	.03030		.00046		.03029		33.013	108,9
.0304	.03040		.00046		.03039		32.905	108,2
0.0305	0.03050	10,0	1.00047	0,3	0.03049	10,0	32.797	107,5
.0306	.03060		.00047		.03059		32.690	106,8
.0307	.03070		.00047		.03069		32.584	106,1
.0308	.03080		.00047		.03079		32.478	105,4
.0309	.03090		.00048		.03089		32.373	104,7
0.0310	0.03100	10,0	1.00048	0,3	0.03099	10,0	32.268	104,0
.0311	.03111		.00048		.03109		32.165	103,4
.0312	.03121		.00049		.03119		32.062	102,7
.0313	.03131		.00049		.03129		31.959	102,0
.0314	.03141		.00049		.03139		31.858	101,4
0.0315	0.03151	10,0	1.00050	0,3	0.03149	10,0	31.757	100,7
.0316	.03161		.00050		.03159		31.656	100,1
.0317	.03171		.00050		.03169		31.556	99,5
.0318	.03181		.00051		.03179		31.457	98,9
.0319	.03191		.00051		.03189		31.359	98,2
0.0320	0.03201	10,0	1.00051	0,3	0.03199	10,0	31.261	97,6
.0321	.03211		.00052		.03209		31.163	97,0
.0322	.03221		.00052		.03219		31.067	96,4
.0323	.03231		.00052		.03229		30.971	95,8
.0324	.03241		.00052		.03239		30.875	95,2
0.0325	0.03251	10,0	1.00053	0,3	0.03249	10,0	30.780	94,6
.0326	.03261		.00053		.03259		30.686	94,1
.0327	.03271		.00053		.03269		30.592	93,5
.0328	.03281		.00054		.03279		30.499	92,9
.0329	.03291		.00054		.03289		30.406	92,4
0.0330	0.03301	10,0	1.00054	0,3	0.03299	10,0	30.314	91,8
.0331	.03311		.00055		.03309		30.223	91,2
.0332	.03321		.00055		.03319		30.132	90,7
.0333	.03331		.00055		.03329		30.041	90,1
.0334	.03341		.00056		.03339		29.951	89,6
0.0335	0.03351	10,0	1.00056	0,3	0.03349	10,0	29.862	89,1
.0336	.03361		.00056		.03359		29.773	88,5
.0337	.03371		.00057		.03369		29.685	88,0
.0338	.03381		.00057		.03379		29.597	87,5
.0339	.03391		.00057		.03389		29.510	87,0
0.0340	0.03401	10,0	1.00058	0,3	0.03399	10,0	29.423	86,6
.0341	.03411		.00058		.03409		29.337	86,0
.0342	.03421		.00058		.03419		29.251	85,5
.0343	.03431		.00059		.03429		29.166	85,0
.0344	.03441		.00059		.03439		29.081	84,5
0.0345	0.03451	10,0	1.00060	0,3	0.03449	10,0	28.997	84,0
.0346	.03461		.00060		.03459		28.913	83,5
.0347	.03471		.00060		.03469		28.830	83,0
.0348	.03481		.00061		.03479		28.747	82,5
.0349	.03491		.00061		.03489		28.665	82,1
0.0350	0.03501	10,0	1.00061	0,4	0.03499	10,0	28.583	81,6
u	tan gd u	ω F₀'	sec gd u	ω F₀'	sin gd u	ω F₀'	csc gd u	ω F₀'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0350	0.03501	10,0	1.00061	0,4	0.03499	10,0	28.583	81,6
.0351	.03511		.00062		.03509		28.502	81,1
.0352	.03521		.00062		.03519		28.421	80,7
.0353	.03531		.00062		.03529		28.340	80,2
.0354	.03541		.00063		.03539		28.260	79,8
0.0355	0.03551	10,0	1.00063	0,4	0.03549	10,0	28.181	79,3
.0356	.03561		.00063		.03558		28.102	78,9
.0357	.03571		.00064		.03568		28.023	78,4
.0358	.03581		.00064		.03578		27.945	78,0
.0359	.03591		.00064		.03588		27.867	77,6
0.0360	0.03601	10,0	1.00065	0,4	0.03598	10,0	27.790	77,1
.0361	.03611		.00065		.03608		27.713	76,7
.0362	.03621		.00066		.03618		27.636	76,3
.0363	.03631		.00066		.03628		27.560	75,9
.0364	.03641		.00066		.03638		27.485	75,4
0.0365	0.03651	10,0	1.00067	0,4	0.03648	10,0	27.409	75,0
.0366	.03661		.00067		.03658		27.335	74,6
.0367	.03671		.00067		.03668		27.260	74,2
.0368	.03681		.00068		.03678		27.186	73,8
.0369	.03691		.00068		.03688		27.113	73,4
0.0370	0.03701	10,0	1.00068	0,4	0.03698	10,0	27.039	73,0
.0371	.03711		.00069		.03708		26.967	72,6
.0372	.03721		.00069		.03718		26.894	72,2
.0373	.03731		.00070		.03728		26.822	71,8
.0374	.03741		.00070		.03738		26.750	71,5
0.0375	0.03751	10,0	1.00070	0,4	0.03748	10,0	26.679	71,1
.0376	.03761		.00071		.03758		26.608	70,7
.0377	.03771		.00071		.03768		26.538	70,3
.0378	.03781		.00071		.03778		26.468	70,0
.0379	.03791		.00072		.03788		26.398	69,6
0.0380	0.03801	10,0	1.00072	0,4	0.03798	10,0	26.328	69,2
.0381	.03811		.00073		.03808		26.259	68,9
.0382	.03821		.00073		.03818		26.191	68,5
.0383	.03831		.00073		.03828		26.122	68,1
.0384	.03841		.00074		.03838		26.054	67,8
0.0385	0.03851	10,0	1.00074	0,4	0.03848	10,0	25.987	67,4
.0386	.03861		.00075		.03858		25.920	67,1
.0387	.03871		.00075		.03868		25.853	66,7
.0388	.03881		.00075		.03878		25.786	66,4
.0389	.03891		.00076		.03888		25.720	66,1
0.0390	0.03901	10,0	1.00076	0,4	0.03898	10,0	25.654	65,7
.0391	.03911		.00076		.03908		25.588	65,4
.0392	.03921		.00077		.03918		25.523	64,0
.0393	.03931		.00077		.03928		25.458	64,7
.0394	.03941		.00078		.03938		25.394	64,4
0.0395	0.03951	10,0	1.00078	0,4	0.03948	10,0	25.330	64,1
.0396	.03961		.00078		.03958		25.266	63,7
.0397	.03971		.00079		.03968		25.202	63,4
.0398	.03981		.00079		.03978		25.139	63,1
.0399	.03991		.00080		.03988		25.076	62,8
0.0400	0.04001	10,0	1.00080	0,4	0.03998	10,0	25.013	62,5
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0400	0.04001	10,0	1.00080	0,4	0.03998	10,0	25.013	62,5
.0401	.04011		.00080		.04008		24.951	62,2
.0402	.04021		.00081		.04018		24.889	61,8
.0403	.04031		.00081		.04028		24.827	61,5
.0404	.04041		.00082		.04038		24.766	61,2
0.0405	0.04051	10,0	1.00082	0,4	0.04048	10,0	24.705	60,8
.0406	.04061		.00082		.04058		24.644	60,6
.0407	.04071		.00083		.04068		24.584	60,3
.0408	.04081		.00083		.04078		24.523	60,0
.0409	.04091		.00084		.04088		24.464	59,7
0.0410	0.04101	10,0	1.00084	0,4	0.04098	10,0	24.404	59,5
.0411	.04111		.00084		.04108		24.345	59,2
.0412	.04121		.00085		.04118		24.286	58,9
.0413	.04131		.00085		.04128		24.227	58,7
.0414	.04141		.00085		.04138		24.168	58,3
0.0415	0.04151	10,0	1.00086	0,4	0.04148	10,0	24.110	58,0
.0416	.04161		.00087		.04158		24.052	57,8
.0417	.04171		.00087		.04168		23.995	57,5
.0418	.04181		.00087		.04178		23.937	57,2
.0419	.04191		.00088		.04188		23.880	56,9
0.0420	0.04201	10,0	1.00088	0,4	0.04198	10,0	23.824	56,7
.0421	.04211		.00089		.04208		23.767	56,4
.0422	.04221		.00089		.04217		23.711	56,1
.0423	.04231		.00089		.04227		23.655	55,9
.0424	.04241		.00090		.04237		23.599	55,6
0.0425	0.04251	10,0	1.00090	0,4	0.04247	10,0	23.544	55,3
.0426	.04261		.00091		.04257		23.488	55,1
.0427	.04271		.00091		.04267		23.433	54,8
.0428	.04281		.00092		.04277		23.379	54,6
.0429	.04291		.00092		.04287		23.324	54,3
0.0430	0.04301	10,0	1.00092	0,4	0.04297	10,0	23.270	54,0
.0431	.04311		.00093		.04307		23.216	53,8
.0432	.04321		.00093		.04317		23.163	53,6
.0433	.04331		.00094		.04327		23.109	53,3
.0434	.04341		.00094		.04337		23.056	53,1
0.0435	0.04351	10,0	1.00095	0,4	0.04347	10,0	23.003	52,8
.0436	.04361		.00095		.04357		22.950	52,6
.0437	.04371		.00095		.04367		22.898	52,3
.0438	.04381		.00096		.04377		22.846	52,1
.0439	.04391		.00096		.04387		22.794	51,9
0.0440	0.04401	10,0	1.00097	0,4	0.04397	10,0	22.742	51,6
.0441	.04411		.00097		.04407		22.690	51,4
.0442	.04421		.00098		.04417		22.639	51,2
.0443	.04431		.00098		.04427		22.588	50,9
.0444	.04441		.00099		.04437		22.537	50,7
0.0445	0.04451	10,0	1.00099	0,4	0.04447	10,0	22.487	50,5
.0446	.04461		.00099		.04457		22.436	50,2
.0447	.04471		.00100		.04467		22.386	50,0
.0448	.04481		.00100		.04477		22.336	49,8
.0449	.04492		.00101		.04487		22.287	49,6
0.0450	0.04502	10,0	1.00101	0,5	0.04497	10,0	22.237	49,3
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0450	0.04502	10,0	1.00101	0,5	0.04497	10,0	22.237	49,3
.0451	.04512		.00102		.04507		22.188	49,1
.0452	.04522		.00102		.04517		22.139	48,9
.0453	.04532		.00103		.04527		22.090	48,7
.0454	.04542		.00103		.04537		22.042	48,5
0.0455	0.04552	10,0	1.00104	0,5	0.04547	10,0	21.993	48,3
.0456	.04562		.00104		.04557		21.945	48,1
.0457	.04572		.00104		.04567		21.897	47,8
.0458	.04582		.00105		.04577		21.849	47,6
.0459	.04592		.00105		.04587		21.802	47,4
0.0460	0.04602	10,0	1.00106	0,5	0.04597	10,0	21.754	47,2
.0461	.04612		.00106		.04607		21.707	47,0
.0462	.04622		.00107		.04617		21.660	46,8
.0463	.04632		.00107		.04627		21.614	46,6
.0464	.04642		.00108		.04637		21.567	46,4
0.0465	0.04652	10,0	1.00108	0,5	0.04647	10,0	21.521	46,2
.0466	.04662		.00109		.04657		21.475	46,0
.0467	.04672		.00109		.04667		21.429	45,8
.0468	.04682		.00110		.04677		21.383	45,6
.0469	.04692		.00110		.04687		21.338	45,4
0.0470	0.04702	10,0	1.00110	0,5	0.04697	10,0	21.292	45,2
.0471	.04712		.00111		.04707		21.247	45,0
.0472	.04722		.00111		.04716		21.202	44,9
.0473	.04732		.00112		.04726		21.157	44,7
.0474	.04742		.00112		.04736		21.113	44,5
0.0475	0.04752	10,0	1.00113	0,5	0.04746	10,0	21.068	44,3
.0476	.04762		.00113		.04756		21.024	44,1
.0477	.04772		.00114		.04766		20.980	43,9
.0478	.04782		.00114		.04776		20.936	43,7
.0479	.04792		.00115		.04786		20.893	43,6
0.0480	0.04802	10,0	1.00115	0,5	0.04796	10,0	20.849	43,4
.0481	.04812		.00116		.04806		20.806	43,2
.0482	.04822		.00116		.04816		20.763	43,0
.0483	.04832		.00117		.04826		20.720	42,8
.0484	.04842		.00117		.04836		20.677	42,7
0.0485	0.04852	10,0	1.00118	0,5	0.04846	10,0	20.635	42,5
.0486	.04862		.00118		.04856		20.592	42,3
.0487	.04872		.00119		.04866		20.550	42,1
.0488	.04882		.00119		.04876		20.508	42,0
.0489	.04892		.00120		.04886		20.466	41,8
0.0490	0.04902	10,0	1.00120	0,5	0.04896	10,0	20.424	41,6
.0491	.04912		.00121		.04906		20.383	41,4
.0492	.04922		.00121		.04916		20.342	41,3
.0493	.04932		.00122		.04926		20.300	41,1
.0494	.04942		.00122		.04936		20.259	40,9
0.0495	0.04952	10,0	1.00123	0,5	0.04946	10,0	20.219	40,8
.0496	.04962		.00123		.04956		20.178	40,6
.0497	.04972		.00124		.04966		20.137	40,5
.0498	.04982		.00124		.04976		20.097	40,3
.0499	.04992		.00125		.04986		20.057	40,1
0.0500	0.05002	10,0	1.00125	0,5	0.04996	10,0	20.017	40,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0500	0.05002	10,0	1.00125	0,5	0.04996	10,0	20.017	40,0
.0501	.05012		.00126		.05006		19.977	39,8
.0502	.05022		.00126		.05016		19.937	39,6
.0503	.05032		.00127		.05026		19.897	39,5
.0504	.05042		.00127		.05036		19.858	39,3
0.0505	0.05052	10,0	1.00128	0,5	0.05046	10,0	19.819	39,2
.0506	.05062		.00128		.05056		19.780	39,0
.0507	.05072		.00129		.05066		19.741	38,9
.0508	.05082		.00129		.05076		19.702	38,7
.0509	.05092		.00130		.05086		19.663	38,6
0.0510	0.05102	10,0	1.00130	0,5	0.05096	10,0	19.625	38,4
.0511	.05112		.00131		.05106		19.587	38,3
.0512	.05122		.00131		.05116		19.548	38,1
.0513	.05132		.00132		.05126		19.510	38,0
.0514	.05142		.00132		.05135		19.472	37,8
0.0515	0.05152	10,0	1.00133	0,5	0.05145	10,0	19.435	37,7
.0516	.05162		.00133		.05155		19.397	37,5
.0517	.05172		.00134		.05165		19.360	37,4
.0518	.05182		.00134		.05175		19.322	37,2
.0519	.05192		.00135		.05185		19.285	37,1
0.0520	0.05202	10,0	1.00135	0,5	0.05195	10,0	19.248	36,9
.0521	.05212		.00136		.05205		19.211	36,8
.0522	.05222		.00136		.05215		19.174	36,7
.0523	.05232		.00137		.05225		19.138	36,5
.0524	.05242		.00137		.05235		19.101	36,4
0.0525	0.05252	10,0	1.00138	0,5	0.05245	10,0	19.065	36,2
.0526	.05262		.00138		.05255		19.029	36,1
.0527	.05272		.00139		.05265		18.993	36,0
.0528	.05282		.00139		.05275		18.957	35,8
.0529	.05292		.00140		.05285		18.921	35,7
0.0530	0.05302	10,0	1.00140	0,5	0.05295	10,0	18.886	35,6
.0531	.05312		.00141		.05305		18.850	35,4
.0532	.05323		.00142		.05315		18.815	35,3
.0533	.05333		.00142		.05325		18.779	35,2
.0534	.05343		.00143		.05335		18.744	35,0
0.0535	0.05353	10,0	1.00143	0,5	0.05345	10,0	18.709	34,9
.0536	.05363		.00144		.05355		18.675	34,8
.0537	.05373		.00144		.05365		18.640	34,6
.0538	.05383		.00145		.05375		18.605	34,5
.0539	.05393		.00145		.05385		18.571	34,4
0.0540	0.05403	10,0	1.00146	0,5	0.05395	10,0	18.537	34,3
.0541	.05413		.00146		.05405		18.502	34,1
.0542	.05423		.00147		.05415		18.468	34,0
.0543	.05433		.00147		.05425		18.434	33,9
.0544	.05443		.00148		.05435		18.400	33,8
0.0545	0.05453	10,0	1.00149	0,5	0.05445	10,0	18.367	33,6
.0546	.05463		.00149		.05455		18.333	33,5
.0547	.05473		.00150		.05465		18.300	33,4
.0548	.05483		.00150		.05475		18.266	33,3
.0549	.05493		.00151		.05484		18.233	33,1
0.0550	0.05503	10,0	1.00151	0,6	0.05494	10,0	18.200	33,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
0.0550	0.05503	10,0	1.00151	0,6	0.05494	10,0	18.200	33,0
.0551	.05513		.00152		.05504		18.167	32,9
.0552	.05523		.00152		.05514		18.134	32,8
.0553	.05533		.00153		.05524		18.102	32,7
.0554	.05543		.00153		.05534		18.069	32,5
0.0555	0.05553	10,0	1.00154	0,6	0.05544	10,0	18.037	32,4
.0556	.05563		.00155		.05554		18.004	32,3
.0557	.05573		.00155		.05564		17.972	32,2
.0558	.05583		.00156		.05574		17.940	32,1
.0559	.05593		.00156		.05584		17.908	32,0
0.0560	0.05603	10,0	1.00157	0,6	2 .05594	10,0	17.876	31,9
.0561	.05613		.00157		.05604		17.844	31,7
.0562	.05623		.00158		.05614		17.812	31,6
.0563	.05633		.00159		.05624		17.781	31,5
.0564	.05643		.00159		.05634		17.749	31,4
0.0565	0.05653	10,0	1.00160	0,6	0.05644	10,0	17.718	31,3
.0566	.05663		.00160		.05654		17.687	31,2
.0567	.05673		.00161		.05664		17.656	31,1
.0568	.05683		.00161		.05674		17.625	31,0
.0569	.05693		.00162		.05684		17.594	30,9
0.0570	0.05703	10,0	1.00162	0,6	0.05694	10,0	17.563	30,7
.0571	.05713		.00163		.05704		17.532	30,6
.0572	.05723		.00164		.05714		17.502	30,5
.0573	.05733		.00164		.05724		17.471	30,4
.0574	.05743		.00165		.05734		17.441	30,3
0.0575	0.05753	10,0	1.00165	0,6	0.05744	10,0	17.410	30,2
.0576	.05763		.00166		.05754		17.380	30,1
.0577	.05773		.00167		.05764		17.350	30,0
.0578	.05783		.00167		.05774		17.320	29,9
.0579	.05793		.00168		.05784		17.290	29,8
0.0580	0.05803	10,0	1.00168	0,6	0.05794	10,0	17.261	29,7
.0581	.05813		.00169		.05803		17.231	29,6
.0582	.05823		.00169		.05813		17.202	29,5
.0583	.05833		.00170		.05823		17.172	29,4
.0584	.05843		.00171		.05833		17.143	29,3
0.0585	0.05853	10,0	1.00171	0,6	0.05843	10,0	17.114	29,2
.0586	.05863		.00172		.05853		17.084	29,1
.0587	.05873		.00172		.05863		17.055	29,0
.0588	.05883		.00173		.05873		17.026	28,9
.0589	.05893		.00174		.05883		16.998	28,8
0.0590	0.05903	10,0	1.00174	0,6	0.05893	10,0	16.969	28,7
.0591	.05913		.00175		.05903		16.940	28,6
.0592	.05923		.00175		.05913		16.912	28,5
.0593	.05933		.00176		.05923		16.883	28,4
.0594	.05943		.00176		.05933		16.855	28,3
0.0595	0.05954	10,0	1.00177	0,6	0.05943	10,0	16.827	28,2
.0596	.05964		.00178		.05953		16.798	28,1
.0597	.05974		.00178		.05963		16.770	28,0
.0598	.05984		.00179		.05973		16.742	27,9
.0599	.05994		.00179		.05983		16.714	27,8
0.0600	0.06004	10,0	1.00180	0,6	0.05993	10,0	16.687	27,7
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0600	0.06004	10,0	1.00180	0,6	0.05993	10,0	16.687	27,7
.0601	.06014		.00181		.06003		16.659	27,7
.0602	.06024		.00181		.06013		16.631	27,6
.0603	.06034		.00182		.06023		16.604	27,5
.0604	.06044		.00182		.06033		16.576	27,4
0.0605	0.06054	10,0	1.00183	0,6	0.06043	10,0	16.549	27,3
.0606	.06064		.00184		.06053		16.522	27,2
.0607	.06074		.00184		.06063		16.495	27,1
.0608	.06084		.00185		.06073		16.468	27,0
.0609	.06094		.00185		.06082		16.441	26,9
0.0610	0.06104	10,0	1.00186	0,6	0.06092	10,0	16.414	26,8
.0611	.06114		.00187		.06102		16.387	26,8
.0612	.06124		.00187		.06112		16.360	26,7
.0613	.06134		.00188		.06122		16.334	26,6
.0614	.06144		.00189		.06132		16.307	26,5
0.0615	0.06154	10,0	1.00189	0,6	0.06142	10,0	16.281	26,4
.0616	.06164		.00190		.06152		16.254	26,3
.0617	.06174		.00190		.06162		16.228	26,2
.0618	.06184		.00191		.06172		16.202	26,1
.0619	.06194		.00192		.06182		16.176	26,1
0.0620	0.06204	10,0	1.00192	0,6	0.06192	10,0	16.150	26,0
.0621	.06214		.00193		.06202		16.124	25,9
.0622	.06224		.00194		.06212		16.098	25,8
.0623	.06234		.00194		.06222		16.072	25,7
.0624	.06244		.00195		.06232		16.046	25,6
0.0625	0.06254	10,0	1.00195	0,6	0.06242	10,0	16.021	25,6
.0626	.06264		.00196		.06252		15.995	25,5
.0627	.06274		.00197		.06262		15.970	25,4
.0628	.06284		.00197		.06272		15.944	25,3
.0629	.06294		.00198		.06282		15.919	25,2
0.0630	0.06304	10,0	1.00199	0,6	0.06292	10,0	15.894	25,2
.0631	.06314		.00199		.06302		15.869	25,1
.0632	.06324		.00200		.06312		15.844	25,0
.0633	.06334		.00200		.06322		15.819	24,9
.0634	.06344		.00201		.06332		15.794	24,8
0.0635	0.06354	10,0	1.00202	0,6	0.06342	10,0	15.769	24,8
.0636	.06364		.00202		.06351		15.744	24,7
.0637	.06374		.00203		.06361		15.720	24,6
.0638	.06384		.00204		.06371		15.695	24,5
.0639	.06394		.00204		.06381		15.671	24,5
0.0640	0.06404	10,0	1.00205	0,6	0.06391	10,0	15.646	24,4
.0641	.06414		.00206		.06401		15.622	24,3
.0642	.06424		.00206		.06411		15.598	24,2
.0643	.06434		.00207		.06421		15.574	24,2
.0644	.06444		.00207		.06431		15.549	24,1
0.0645	0.06454	10,0	1.00208	0,6	0.06441	10,0	15.525	24,0
.0646	.06464		.00209		.06451		15.501	23,9
.0647	.06475		.00209		.06461		15.478	23,9
.0648	.06485		.00210		.06471		15.454	23,8
.0649	.06495		.00211		.06481		15.430	23,7
0.0650	0.06505	10,0	1.00211	0,7	0.06491	10,0	15.406	23,6
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
0.0650	0.06505	10,0	1.00211	0,7	0.06491	10,0	15.406	23,6
.0651	.06515		.00212		.06501		15.383	23,6
.0652	.06525		.00213		.06511		15.359	23,5
.0653	.06535		.00213		.06521		15.336	23,4
.0654	.06545		.00214		.06531		15.312	23,3
0.0655	0.06555	10,0	1.00215	0,7	0.06541	10,0	15.289	23,3
.0656	.06565		.00215		.06551		15.266	23,2
.0657	.06575		.00216		.06561		15.243	23,1
.0658	.06585		.00217		.06571		15.219	23,1
.0659	.06595		.00217		.06580		15.196	23,0
0.0660	0.06605	10,0	1.00218	0,7	0.06590	10,0	15.174	22,9
.0661	.06615		.00219		.06600		15.151	22,9
.0662	.06625		.00219		.06610		15.128	22,8
.0663	.06635		.00220		.06620		15.105	22,7
.0664	.06645		.00221		.06630		15.082	22,6
0.0665	0.06655	10,0	1.00221	0,7	0.06640	10,0	15.060	22,6
.0666	.06665		.00222		.06650		15.037	22,5
.0667	.06675		.00223		.06660		15.015	22,4
.0668	.06685		.00223		.06670		14.992	22,4
.0669	.06695		.00224		.06680		14.970	22,3
0.0670	0.06705	10,0	1.00225	0,7	0.06690	10,0	14.948	22,2
.0671	.06715		.00225		.06700		14.925	22,2
.0672	.06725		.00226		.06710		14.903	22,1
.0673	.06735		.00227		.06720		14.881	22,0
.0674	.06745		.00227		.06730		14.859	22,0
0.0675	0.06755	10,0	1.00228	0,7	0.06740	10,0	14.837	21,9
.0676	.06765		.00229		.06750		14.815	21,8
.0677	.06775		.00229		.06760		14.794	21,8
.0678	.06785		.00230		.06770		14.772	21,7
.0679	.06795		.00231		.06780		14.750	21,7
0.0680	0.06805	10,0	1.00231	0,7	0.06790	10,0	14.729	21,6
.0681	.06815		.00232		.06799		14.707	21,5
.0682	.06825		.00233		.06809		14.685	21,5
.0683	.06835		.00233		.06819		14.664	21,4
.0684	.06845		.00234		.06829		14.643	21,3
0.0685	0.06855	10,0	1.00235	0,7	0.06839	10,0	14.621	21,3
.0686	.06865		.00235		.06849		14.600	21,2
.0687	.06875		.00236		.06859		14.579	21,2
.0688	.06885		.00237		.06869		14.558	21,1
.0689	.06895		.00237		.06879		14.537	21,0
0.0690	0.06905	10,0	1.00238	0,7	0.06889	10,0	14.516	21,0
.0691	.06916		.00239		.06899		14.495	20,9
.0692	.06926		.00240		.06909		14.474	20,8
.0693	.06936		.00240		.06919		14.453	20,8
.0694	.06946		.00241		.06929		14.432	20,7
0.0695	0.06956	10,0	1.00242	0,7	0.06939	10,0	14.412	20,7
.0696	.06966		.00242		.06949		14.391	20,6
.0697	.06976		.00243		.06959		14.370	20,6
.0698	.06986		.00244		.06969		14.350	20,5
.0699	.06996		.00244		.06979		14.329	20,4
0.0700	0.07006	10,0	1.00245	0,7	0.06989	10,0	14.309	20,4
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0700	0.07006	10,0	1.00245	0,7	0.06989	10,0	14.309	20,4
.0701	.07016		.00246		.06999		14.289	20,3
.0702	.07026		.00247		.07008		14.268	20,3
.0703	.07036		.00247		.07018		14.248	20,2
.0704	.07046		.00248		.07028		14.228	20,1
0.0705	0.07056	10,0	1.00249	0,7	0.07038	10,0	14.208	20,1
.0706	.07066		.00249		.07048		14.188	20,0
.0707	.07076		.00250		.07058		14.168	20,0
.0708	.07086		.00251		.07068		14.148	19,9
.0709	.07096		.00251		.07078	9,9	14.128	19,9
0.0710	0.07106	10,0	1.00252	0,7	0.07088	9,9	14.108	19,8
.0711	.07116		.00253		.07098		14.088	19,7
.0712	.07126		.00254		.07108		14.069	19,7
.0713	.07136		.00254		.07118		14.049	19,6
.0714	.07146		.00255		.07128		14.029	19,6
0.0715	0.07156	10,0	1.00256	0,7	0.07138	9,9	14.010	19,5
.0716	.07166		.00256		.07148		13.990	19,5
.0717	.07176		.00257		.07158		13.971	19,4
.0718	.07186		.00258		.07168		13.952	19,4
.0719	.07196		.00259		.07178		13.932	19,3
0.0720	0.07206	10,0	1.00259	0,7	0.07188	9,9	13.913	19,3
.0721	.07216		.00260		.07198		13.894	19,2
.0722	.07226		.00261		.07207		13.874	19,2
.0723	.07236		.00261		.07217		13.855	19,1
.0724	.07246		.00262		.07227		13.836	19,0
0.0725	0.07256	10,0	1.00263	0,7	0.07237	9,9	13.817	19,0
.0726	.07266		.00264		.07247		13.798	18,9
.0727	.07276		.00264		.07257		13.779	18,9
.0728	.07286		.00265		.07267		13.761	18,8
.0729	.07296		.00266		.07277		13.742	18,8
0.0730	0.07306	10,0	1.00267	0,7	0.07287	9,9	13.723	18,7
.0731	.07317		.00267		.07297		13.704	18,7
.0732	.07327		.00268		.07307		13.686	18,6
.0733	.07337		.00269		.07317		13.667	18,6
.0734	.07347		.00269		.07327		13.648	18,5
0.0735	0.07357	10,0	1.00270	0,7	0.07337	9,9	13.630	18,5
.0736	.07367		.00271		.07347		13.611	18,4
.0737	.07377		.00272		.07357		13.593	18,4
.0738	.07387		.00272		.07367		13.575	18,3
.0739	.07397		.00273		.07377		13.556	18,3
0.0740	0.07407	10,0	1.00274	0,7	0.07387	9,9	13.538	18,2
.0741	.07417		.00275		.07396		13.520	18,2
.0742	.07427		.00275		.07406		13.502	18,1
.0743	.07437		.00276		.07416		13.484	18,1
.0744	.07447		.00277		.07426		13.466	18,0
0.0745	0.07457	10,0	1.00278	0,7	0.07436	9,9	13.448	18,0
.0746	.07467		.00278		.07446		13.430	17,9
.0747	.07477		.00279		.07456		13.412	17,9
.0748	.07487		.00280		.07466		13.394	17,8
.0749	.07497		.00281		.07476		13.376	17,8
0.0750	0.07507	10,0	1.00281	0,8	0.07486	9,9	13.358	17,7
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
0.0750	0.07507	10,0	1.00281	0,8	0.07486	9,9	13.358	17,7
.0751	.07517		.00282		.07496		13.341	17,7
.0752	.07527		.00283		.07506		13.323	17,7
.0753	.07537		.00284		.07516		13.305	17,6
.0754	.07547		.00284		.07526		13.288	17,6
0.0755	0.07557	10,0	1.00285	0,8	0.07536	9,9	13.270	17,5
.0756	.07567		.00286		.07546		13.253	17,5
.0757	.07577		.00287		.07556		13.235	17,4
.0758	.07587		.00287		.07566		13.218	17,4
.0759	.07597		.00288		.07575		13.201	17,3
0.0760	0.07607	10,0	1.00289	0,8	0.07585	9,9	13.183	17,3
.0761	.07617		.00290		.07595		13.166	17,2
.0762	.07627		.00290		.07605		13.149	17,2
.0763	.07637		.00291		.07615		13.132	17,1
.0764	.07647		.00292		.07625		13.114	17,1
0.0765	0.07657	10,0	1.00293	0,8	0.07635	9,9	13.097	17,1
.0766	.07667		.00294		.07645		13.080	17,0
.0767	.07678		.00294		.07655		13.063	17,0
.0768	.07688		.00295		.07665		13.046	16,9
.0769	.07698		.00296		.07675		13.030	16,9
0.0770	0.07708	10,0	1.00297	0,8	0.07685	9,9	13.013	16,8
.0771	.07718		.00297		.07695		12.996	16,8
.0772	.07728		.00298		.07705		12.979	16,7
.0773	.07738		.00299		.07715		12.962	16,7
.0774	.07748		.00300		.07725		12.946	16,7
0.0775	0.07758	10,0	1.00300	0,8	0.07735	9,9	12.929	16,6
.0776	.07768		.00301		.07744		12.912	16,6
.0777	.07778		.00302		.07754		12.896	16,5
.0778	.07788		.00303		.07764		12.879	16,5
.0779	.07798		.00304		.07774		12.863	16,5
0.0780	0.07808	10,0	1.00304	0,8	0.07784	9,9	12.847	16,4
.0781	.07818		.00305		.07794		12.830	16,4
.0782	.07828		.00306		.07804		12.814	16,3
.0783	.07838		.00307		.07814		12.797	16,3
.0784	.07848		.00307		.07824		12.781	16,2
0.0785	0.07858	10,0	1.00308	0,8	0.07834	9,9	12.765	16,2
.0786	.07868		.00309		.07844		12.749	16,2
.0787	.07878		.00310		.07854		12.733	16,1
.0788	.07888		.00311		.07864		12.717	16,1
.0789	.07898		.00311		.07874		12.701	16,0
0.0790	0.07908	10,0	1.00312	0,8	0.07884	9,9	12.685	16,0
.0791	.07918		.00313		.07894		12.669	15,9
.0792	.07928		.00314		.07903		12.653	15,9
.0793	.07938		.00315		.07913		12.637	15,9
.0794	.07948		.00315		.07923		12.621	15,8
0.0795	0.07958	10,0	1.00316	0,8	0.07933	9,9	12.605	15,8
.0796	.07968		.00317		.07943		12.589	15,7
.0797	.07978		.00318		.07953		12.574	15,7
.0798	.07988		.00319		.07963		12.558	15,7
.0799	.07999		.00319		.07973		12.542	15,6
0.0800	0.08009	10,0	1.00320	0,8	0.07983	9,9	12.527	15,6
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0800	0.08009	10,0	1.00320	0,8	0.07983	9,9	12.527	15,6
.0801	.08019		.00321		.07993		12.511	15,6
.0802	.08029		.00322		.08003		12.496	15,5
.0803	.08039		.00323		.08013		12.480	15,5
.0804	.08049		.00323		.08023		12.465	15,4
0.0805	0.08059	10,0	1.00324	0,8	0.08033	9,9	12.449	15,4
.0806	.08069		.00325		.08043		12.434	15,4
.0807	.08079		.00326		.08053		12.418	15,3
.0808	.08089		.00327		.08062		12.403	15,3
.0809	.08099		.00327		.08072		12.388	15,2
0.0810	0.08109	10,0	1.00328	0,8	0.08082	9,9	12.373	15,2
.0811	.08119		.00329		.08092		12.357	15,2
.0812	.08129		.00330		.08102		12.342	15,1
.0813	.08139		.00331		.08112		12.327	15,1
.0814	.08149		.00331		.08122		12.312	15,1
0.0815	0.08159	10,0	1.00332	0,8	0.08132	9,9	12.297	15,0
.0816	.08169		.00333		.08142		12.282	15,0
.0817	.08179		.00334		.08152		12.267	14,9
.0818	.08189		.00335		.08162		12.252	14,9
.0819	.08199		.00336		.08172		12.237	14,9
0.0820	0.08209	10,0	1.00336	0,8	0.08182	9,9	12.222	14,8
.0821	.08219		.00337		.08192		12.208	14,8
.0822	.08229		.00338		.08202		12.193	14,8
.0823	.08239		.00339		.08211		12.178	14,7
.0824	.08249		.00340		.08221		12.163	14,7
0.0825	0.08259	10,0	1.00341	0,8	0.08231	9,9	12.149	14,7
.0826	.08269		.00341		.08241		12.134	14,6
.0827	.08279		.00342		.08251		12.119	14,6
.0828	.08289		.00343		.08261		12.105	14,6
.0829	.08299		.00344		.08271		12.090	14,5
0.0830	0.08310	10,0	1.00345	0,8	0.08281	9,9	12.076	14,5
.0831	.08320		.00345		.08291		12.061	14,4
.0832	.08330		.00346		.08301		12.047	14,4
.0833	.08340		.00347		.08311		12.033	14,4
.0834	.08350		.00348		.08321		12.018	14,3
0.0835	0.08360	10,0	1.00349	0,8	0.08331	9,9	12.004	14,3
.0836	.08370		.00350		.08341		11.990	14,3
.0837	.08380		.00350		.08351		11.975	14,2
.0838	.08390		.00351		.08360		11.961	14,2
.0839	.08400		.00352		.08370		11.947	14,2
0.0840	0.08410	10,0	1.00353	0,8	0.08380	9,9	11.933	14,1
.0841	.08420		.00354		.08390		11.919	14,1
.0842	.08430		.00355		.08400		11.905	14,1
.0843	.08440		.00356		.08410		11.890	14,0
.0844	.08450		.00356		.08420		11.876	14,0
0.0845	0.08460	10,0	1.00357	0,8	0.08430	9,9	11.862	14,0
.0846	.08470		.00358		.08440		11.849	13,9
.0847	.08480		.00359		.08450		11.835	13,9
.0848	.08490		.00360		.08460		11.821	13,9
.0849	.08500		.00361	0,9	.08470		11.807	13,8
0.0850	0.08510	10,0	1.00361	0,9	0.08480	9,9	11.793	13,8
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.0850	0.08510	10,0	1.00361	0,9	0.08480	9,9	11.793	13,8
.0851	.08520		.00362		.08490		11.779	13,8
.0852	.08530		.00363		.08499		11.765	13,7
.0853	.08540		.00364		.08509		11.752	13,7
.0854	.08550		.00365		.08519		11.738	13,7
0.0855	0.08560	10,0	1.00366	0,9	0.08529	9,9	11.724	13,6
.0856	.08570		.00367		.08539		11.711	13,6
.0857	.08580		.00367		.08549		11.697	13,6
.0858	.08591		.00368		.08559		11.684	13,6
.0859	.08601		.00369		.08569		11.670	13,5
0.0860	0.08611	10,0	1.00370	0,9	0.08579	9,9	11.657	13,5
.0861	.08621		.00371		.08589		11.643	13,5
.0862	.08631		.00372		.08599		11.630	13,4
.0863	.08641		.00373		.08609		11.616	13,4
.0864	.08651		.00373		.08619		11.603	13,4
0.0865	0.08661	10,0	1.00374	0,9	0.08628	9,9	11.590	13,3
.0866	.08671		.00375		.08638		11.576	13,3
.0867	.08681		.00376		.08648		11.563	13,3
.0868	.08691		.00377		.08658		11.550	13,2
.0869	.08701		.00378		.08668		11.536	13,2
0.0870	0.08711	10,0	1.00379	0,9	0.08678	9,9	11.523	13,2
.0871	.08721		.00380		.08688		11.510	13,1
.0872	.08731		.00380		.08698		11.497	13,1
.0873	.08741		.00381		.08708		11.484	13,1
.0874	.08751		.00382		.08718		11.471	13,1
0.0875	0.08761	10,0	1.00383	0,9	0.08728	9,9	11.458	13,0
.0876	.08771		.00384		.08738		11.445	13,0
.0877	.08781		.00385		.08748		11.432	13,0
.0878	.08791		.00386		.08758		11.419	12,9
.0879	.08801		.00387		.08767		11.406	12,9
0.0880	0.08811	10,0	1.00387	0,9	0.08777	9,9	11.393	12,9
.0881	.08821		.00388		.08787		11.380	12,8
.0882	.08831		.00389		.08797		11.367	12,8
.0883	.08841		.00390		.08807		11.354	12,8
.0884	.08852		.00391		.08817		11.342	12,8
0.0885	0.08862	10,0	1.00392	0,9	0.08827	9,9	11.329	12,7
.0886	.08872		.00393		.08837		11.316	12,7
.0887	.08882		.00394		.08847		11.304	12,7
.0888	.08892		.00395		.08857		11.291	12,6
.0889	.08902		.00395		.08867		11.278	12,6
0.0890	0.08912	10,0	1.00396	0,9	0.08877	9,9	11.266	12,6
.0891	.08922		.00397		.08886		11.253	12,6
.0892	.08932		.00398		.08896		11.240	12,5
.0893	.08942		.00399		.08906		11.228	12,5
.0894	.08952		.00400		.08916		11.215	12,5
0.0895	0.08962	10,0	1.00401	0,9	0.08926	9,9	11.203	12,5
.0896	.08972		.00402		.08936		11.191	12,4
.0897	.08982		.00403		.08946		11.178	12,4
.0898	.08992		.00403		.08956		11.166	12,4
.0899	.09002		.00404		.08966		11.153	12,3
0.0900	0.09012	10,0	1.00405	0,9	0.08976	9,9	11.141	12,3
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
0.0900	0.09012	10,0	1.00405	0,9	0.08976	9,9	11.141	12,3
.0901	.09022		.00406		.08986		11.129	12,3
.0902	.09032		.00407		.08996		11.117	12,3
.0903	.09042		.00408		.09006		11.104	12,2
.0904	.09052		.00409		.09015		11.092	12,2
0.0905	0.09062	10,0	1.00410	0,9	0.09025	9,9	11.080	12,2
.0906	.09072		.00411		.09035		11.068	12,1
.0907	.09082		.00412		.09045		11.056	12,1
.0908	.09092		.00413		.09055		11.043	12,1
.0909	.09103		.00413		.09065		11.031	12,1
0.0910	0.09113	10,0	1.00414	0,9	0.09075	9,9	11.019	12,0
.0911	.09123		.00415		.09085		11.007	12,0
.0912	.09133		.00416		.09095		10.995	12,0
.0913	.09143		.00417		.09105		10.983	12,0
.0914	.09153		.00418		.09115		10.971	11,9
0.0915	0.09163	10,0	1.00419	0,9	0.09125	9,9	10.959	11,9
.0916	.09173		.00420		.09134		10.948	11,9
.0917	.09183		.00421		.09144		10.936	11,9
.0918	.09193		.00422		.09154		10.924	11,8
.0919	.09203		.00423		.09164		10.912	11,8
0.0920	0.09213	10,0	1.00423	0,9	0.09174	9,9	10.900	11,8
.0921	.09223		.00424		.09184		10.888	11,8
.0922	.09233		.00425		.09194		10.877	11,7
.0923	.09243		.00426		.09204		10.865	11,7
.0924	.09253		.00427		.09214		10.853	11,7
0.0925	0.09263	10,0	1.00428	0,9	0.09224	9,9	10.842	11,7
.0926	.09273		.00429		.09234		10.830	11,6
.0927	.09283		.00430		.09244		10.818	11,6
.0928	.09293		.00431		.09253		10.807	11,6
.0929	.09303		.00432		.09263		10.795	11,6
0.0930	0.09313	10,0	1.00433	0,9	0.09273	9,9	10.784	11,5
.0931	.09323		.00434		.09283		10.772	11,5
.0932	.09333		.00435		.09293		10.761	11,5
.0933	.09344		.00436		.09303		10.749	11,5
.0934	.09354		.00436		.09313		10.738	11,4
0.0935	0.09364	10,0	1.00437	0,9	0.09323	9,9	10.726	11,4
.0936	.09374		.00438		.09333		10.715	11,4
.0937	.09384		.00439		.09343		10.704	11,4
.0938	.09394		.00440		.09353		10.692	11,3
.0939	.09404		.00441		.09362		10.681	11,3
0.0940	0.09414	10,0	1.00442	0,9	0.09372	9,9	10.670	11,3
.0941	.09424		.00443		.09382		10.658	11,3
.0942	.09434		.00444		.09392		10.647	11,2
.0943	.09444		.00445		.09402		10.636	11,2
.0944	.09454		.00446		.09412		10.625	11,2
0.0945	0.09464	10,0	1.00447	0,9	0.09422	9,9	10.613	11,2
.0946	.09474		.00448		.09432		10.602	11,1
.0947	.09484		.00449		.09442		10.591	11,1
.0948	.09494		.00450	0,9	.09452		10.580	11,1
.0949	.09504		.00451	1,0	.09462		10.569	11,1
0.0950	0.09514	10,0	1.00452	1,0	0.09472	9,9	10.558	11,0
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀'	cosh u	ω F₀'	tanh u	ω F₀'	coth u	ω F₀'
0.0950	0.09514	10,0	1.00452	1,0	0.09472	9,9	10.558	11,0
.0951	.09524		.00453		.09481		10.547	11,0
.0952	.09534		.00453		.09491		10.536	11,0
.0953	.09544		.00454		.09501		10.525	11,0
.0954	.09554		.00455		.09511		10.514	11,0
0.0955	0.09565	10,0	1.00456	1,0	0.09521	9,9	10.503	10,9
.0956	.09575		.00457		.09531		10.492	10,9
.0957	.09585		.00458		.09541		10.481	10,9
.0958	.09595		.00459		.09551		10.470	10,9
.0959	.09605		.00460		.09561		10.459	10,8
0.0960	0.09615	10,0	1.00461	1,0	0.09571	9,9	10.449	10,8
.0961	.09625		.00462		.09581		10.438	10,8
.0962	.09635		.00463		.09590		10.427	10,8
.0963	.09645		.00464		.09600		10.416	10,7
.0964	.09655		.00465		.09610		10.406	10,7
0.0965	0.09665	10,0	1.00466	1,0	0.09620	9,9	10.395	10,7
.0966	.09675		.00467		.09630		10.384	10,7
.0967	.09685		.00468		.09640		10.373	10,7
.0968	.09695		.00469		.09650		10.363	10,6
.0969	.09705		.00470		.09660		10.352	10,6
0.0970	0.09715	10,0	1.00471	1,0	0.09670	9,9	10.342	10,6
.0971	.09725		.00472		.09680		10.331	10,6
.0972	.09735		.00473		.09689		10.320	10,6
.0973	.09745		.00474		.09699		10.310	10,5
.0974	.09755		.00475		.09709		10.299	10,5
0.0975	0.09765	[illegible]	1.00476	[illegible]	0.09719	9,9	10.289	10,5
.0976	.09776		.00477		.09729		10.278	10,5
.0977	.09786		.00478		.09739		10.268	10,4
.0978	.09796		.00479		.09749		10.258	10,4
.0979	.09806		.00480		.09759		10.247	10,4
0.0980	0.09816	10,0	1.00481	1,0	0.09769	9,9	10.237	10,4
.0981	.09826		.00482		.09779		10.226	10,4
.0982	.09836		.00483		.09788		10.216	10,3
.0983	.09846		.00484		.09798		10.206	10,3
.0984	.09856		.00485		.09808		10.195	10,3
0.0985	0.09866	10,0	1.00486	1,0	0.09818	9,9	10.185	10,3
.0986	.09876		.00486		.09828		10.175	10,3
.0987	.09886		.00487		.09838		10.165	10,2
.0988	.09896		.00488		.09848		10.154	10,2
.0989	.09906		.00489		.09858		10.144	10,2
0.0990	0.09916	10,0	1.00490	1,0	0.09868	9,9	10.134	10,2
.0991	.09926		.00491		.09878		10.124	10,1
.0992	.09936		.00492		.09888		10.114	10,1
.0993	.09946		.00493		.09897		10.104	10,1
.0994	.09956		.00494		.09907		10.093	10,1
0.0995	0.09966	10,0	1.00495	1,0	0.09917	9,9	10.083	10,1
.0996	.09976		.00496		.09927		10.073	10,0
.0997	.09987		.00497		.09937		10.063	10,0
.0998	.09997		.00498		.09947		10.053	10,0
.0999	.10007		.00499		.09957		10.043	10,0
0.1000	0.10017	10,1	1.00500	1,0	0.09967	9,9	10.033	10,0
u	tan gd u	ω F₀'	sec gd u	ω F₀'	sin gd u	ω F₀'	csc gd u	ω F₀'

Natural Hyperbolic Functions.

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
0.100	0.10017	100,5	1.00500	10,0	0.09967	99,0	10.0333	996,7
.101	.10117	100,5	.00510	10,1	.10066	99,0	9.9346	977,0
.102	.10218	100,5	.00521	10,2	.10165	99,0	.8379	957,9
.103	.10318	100,5	.00531	10,3	.10264	98,9	.7430	939,3
.104	.10419	100,5	.00541	10,4	.10363	98,9	.6500	921,2
0.105	0.10519	100,6	1.00552	10,5	0.10462	98,9	9.5588	903,7
.106	.10620	100,6	.00562	10,6	.10560	98,9	.4693	886,7
.107	.10720	100,6	.00573	10,7	.10659	98,9	.3814	870,1
.108	.10821	100,6	.00584	10,8	.10758	98,8	.2952	854,0
.109	.10922	100,6	.00595	10,9	.10857	98,8	.2106	838,4
0.110	0.11022	100,6	1.00606	11,0	0.10956	98,8	9.1275	823,1
.111	.11123	100,6	.00617	11,1	.11055	98,8	.0460	808,3
.112	.11223	100,6	.00628	11,2	.11153	98,8	8.9659	793,9
.113	.11324	100,6	.00639	11,3	.11252	98,7	.8872	779,8
.114	.11425	100,7	.00651	11,4	.11351	98,7	.8099	766,1
0.115	0.11525	100,7	1.00662	11,5	0.11450	98,7	8.7340	752,8
.116	.11626	100,7	.00674	11,6	.11548	98,7	.6593	739,8
.117	.11727	100,7	.00685	11,7	.11647	98,6	.5860	727,2
.118	.11827	100,7	.00697	11,8	.11746	98,6	.5139	714,9
.119	.11928	100,7	.00709	11,9	.11844	98,6	.4430	702,8
0.120	0.12029	100,7	1.00721	12,0	0.11943	98,6	8.3733	691,1
.121	.12130	100,7	.00733	12,1	.12041	98,6	.3048	679,7
.122	.12230	100,7	.00745	12,2	.12140	98,5	.2373	668,5
.123	.12331	100,8	.00757	12,3	.12238	98,5	.1710	657,7
.124	.12432	100,8	.00770	12,4	.12337	98,5	.1058	647,0
0.125	0.12533	100,8	1.00782	12,5	0.12435	98,5	8.0416	636,7
.126	.12633	100,8	.00795	12,6	.12534	98,4	7.9785	626,6
.127	.12734	100,8	.00808	12,7	.12632	98,4	.9163	616,7
.128	.12835	100,8	.00820	12,8	.12731	98,4	.8551	607,0
.129	.12936	100,8	.00833	12,9	.12829	98,4	.7949	597,6
0.130	0.13037	100,8	1.00846	13,0	0.12927	98,3	7.7356	588,4
.131	.13138	100,9	.00859	13,1	.13026	98,3	.6772	579,4
.132	.13238	100,9	.00872	13,2	.13124	98,3	.6197	570,6
.133	.13339	100,9	.00886	13,3	.13222	98,3	.5631	562,0
.134	.13440	100,9	.00899	13,4	.13320	98,2	.5073	553,6
0.135	0.13541	100,9	1.00913	13,5	0.13419	98,2	7.4524	545,4
.136	.13642	100,9	.00926	13,6	.13517	98,2	.3982	537,3
.137	.13743	100,9	.00940	13,7	.13615	98,1	.3449	529,5
.138	.13844	101,0	.00954	13,8	.13713	98,1	.2923	521,8
.139	.13945	101,0	.00968	13,9	.13811	98,1	.2405	514,3
0.140	0.14046	101,0	1.00982	14,0	0.13909	98,1	7.1895	506,9
.141	.14147	101,0	.00996	14,1	.14007	98,0	.1391	499,7
.142	.14248	101,0	.01010	14,2	.14105	98,0	.0895	492,6
.143	.14349	101,0	.01024	14,3	.14203	98,0	.0406	485,7
.144	.14450	101,0	.01039	14,4	.14301	98,0	6.9924	478,9
0.145	0.14551	101,1	1.01053	14,6	0.14399	97,9	6.9448	472,3
.146	.14652	101,1	.01068	14,7	.14497	97,9	.8979	465,8
.147	.14753	101,1	.01082	14,8	.14595	97,9	.8517	459,5
.148	.14854	101,1	.01097	14,9	.14693	97,8	.8060	453,2
.149	.14955	101,1	.01112	15,0	.14791	97,8	.7610	447,1
0.150	0.15056	101,1	1.01127	15,1	0.14889	97,8	6.7166	441,1
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	F₀′
0.150	0.15056	101,1	1.01127	15,1	0.14889	97,8	6.7166	441,1
.151	.15157	101,1	.01142	15,2	.14986	97,8	.6728	435,3
.152	.15259	101,2	.01157	15,3	.15084	97,7	.6295	429,5
.153	.15360	101,2	.01173	15,4	.15182	97,7	.5869	423,9
.154	.15461	101,2	.01188	15,5	.15279	97,7	.5448	418,3
0.155	0.15562	101,2	1.01204	15,6	0.15377	97,6	6.5032	412,9
.156	.15663	101,2	.01219	15,7	.15475	97,6	.4622	407,6
.157	.15765	101,2	.01235	15,8	.15572	97,6	.4217	402,4
.158	.15866	101,3	.01251	15,9	.15670	97,5	.3817	397,3
.159	.15967	101,3	.01267	16,0	.15767	97,5	.3422	392,2
0.160	0.16068	101,3	1.01283	16,1	0.15865	97,5	6.3032	387,3
.161	.16170	101,3	.01299	16,2	.15962	97,5	.2648	382,5
.162	.16271	101,3	.01315	16,3	.16060	97,4	.2267	377,7
.163	.16372	101,3	.01331	16,4	.16157	97,4	.1892	373,1
.164	.16474	101,3	.01348	16,5	.16254	97,4	.1521	368,5
0.165	0.16575	101,4	1.01364	16,6	0.16352	97,3	6.1155	364,0
.166	.16676	101,4	.01381	16,7	.16449	97,3	.0793	359,6
.167	.16778	101,4	.01398	16,8	.16546	97,3	.0436	355,2
.168	.16879	101,4	.01415	16,9	.16644	97,2	.0083	351,0
.169	.16981	101,4	.01431	17,0	.16741	97,2	5.9734	346,8
0.170	0.17082	101,4	1.01448	17,1	0.16838	97,2	5.9389	342,7
.171	.17183	101,5	.01466	17,2	.16935	97,1	.9048	338,7
.172	.17285	101,5	.01483	17,3	.17032	97,1	.8712	334,7
.173	.17386	101,5	.01500	17,4	.17129	97,1	.8379	330,8
.174	.17488	101,5	.01518	17,5	.17226	97,0	.8050	327,0
0.175	0.17589	101,5	1.01535	17,6	0.17324	97,0	5.7725	323,2
.176	.17691	101,6	.01553	17,7	.17420	97,0	.7404	319,5
.177	.17793	101,6	.01571	17,8	.17517	96,9	.7086	315,9
.178	.17894	101,6	.01588	17,9	.17614	96,9	.6772	312,3
.179	.17996	101,6	.01606	18,0	.17711	96,9	.6461	308,8
0.180	0.18097	101,6	1.01624	18,1	0.17808	96,8	5.6154	305,3
.181	.18199	101,6	.01643	18,2	.17905	96,8	.5851	301,9
.182	.18301	101,7	.01661	18,3	.18002	96,8	.5550	298,6
.183	.18402	101,7	.01679	18,4	.18098	96,7	.5253	295,3
.184	.18504	101,7	.01698	18,5	.18195	96,7	.4960	292,1
0.185	0.18606	101,7	1.01716	18,6	0.18292	96,7	5.4669	288,9
.186	.18707	101,7	.01735	18,7	.18388	96,6	.4382	285,8
.187	.18809	101,8	.01754	18,8	.18485	96,6	.4098	282,7
.188	.18911	101,8	.01772	18,9	.18582	96,5	.3817	279,6
.189	.19013	101,8	.01791	19,0	.18678	96,5	.3539	276,6
0.190	0.19115	101,8	1.01810	19,1	0.18775	96,5	5.3263	273,7
.191	.19216	101,8	.01830	19,2	.18871	96,4	.2991	270,8
.192	.19318	101,8	.01849	19,3	.18967	96,4	.2722	268,0
.193	.19420	101,9	.01868	19,4	.19064	96,4	.2455	265,2
.194	.19522	101,9	.01888	19,5	.19160	96,3	.2191	262,4
0.195	0.19624	101,9	1.01907	19,6	0.19257	96,3	5.1930	259,7
.196	.19726	101,9	.01927	19,7	.19353	96,3	.1672	257,0
.197	.19828	101,9	.01947	19,8	.19449	96,2	.1416	254,4
.198	.19930	102,0	.01967	19,9	.19545	96,2	.1163	251,8
.199	.20032	102,0	.01987	20,0	.19641	96,1	.0913	249,2
0.200	0.20134	102,0	1.02007	20,1	0.19738	96,1	5.0665	246,7
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.200	0.20134	102,0	1.02007	20,1	0.19738	96,1	5.0665	246,7
.201	.20236	102,0	.02027	20,2	.19834	96,1	.0419	244,2
.202	.20338	102,0	.02047	20,3	.19930	96,0	.0176	241,8
.203	.20440	102,1	.02068	20,4	.20026	96,0	4.9936	239,4
.204	.20542	102,1	.02088	20,5	.20122	96,0	.9698	237,0
0.205	0.20644	102,1	1.02109	20,6	0.20218	95,9	4.9462	234,6
.206	.20746	102,1	.02129	20,7	.20313	95,9	.9228	232,3
.207	.20848	102,2	.02150	20,8	.20409	95,8	.8997	230,1
.208	.20950	102,2	.02171	21,0	.20505	95,8	.8768	227,8
.209	.21052	102,2	.02192	21,1	.20601	95,8	.8542	225,6
0.210	0.21155	102,2	1.02213	21,2	0.20697	95,7	4.8317	223,5
.211	.21257	102,2	.02234	21,3	.20792	95,7	.8095	221,3
.212	.21359	102,3	.02256	21,4	.20888	95,6	.7874	219,2
.213	.21461	102,3	.02277	21,5	.20984	95,6	.7656	217,1
.214	.21564	102,3	.02299	21,6	.21079	95,6	.7440	215,1
0.215	0.21666	102,3	1.02320	21,7	0.21175	95,5	4.7226	213,0
.216	.21768	102,3	.02342	21,8	.21270	95,5	.7014	211,0
.217	.21871	102,4	.02364	21,9	.21366	95,4	.6804	209,1
.218	.21973	102,4	.02386	22,0	.21461	95,4	.6596	207,1
.219	.22075	102,4	.02408	22,1	.21556	95,4	.6390	205,2
0.220	0.22178	102,4	1.02430	22,2	0.21652	95,3	4.6186	203,3
.221	.22280	102,5	.02452	22,3	.21747	95,3	.5983	201,4
.222	.22383	102,5	.02474	22,4	.21842	95,2	.5783	199,6
.223	.22485	102,5	.02497	22,5	.21938	95,2	.5584	197,8
.224	.22588	102,5	.02519	22,6	.22033	95,1	.5387	196,0
0.225	0.22690	102,5	1.02542	22,7	0.22128	95,1	4.5192	194,2
.226	.22793	102,6	.02565	22,8	.22223	95,1	.4999	192,5
.227	.22895	102,6	.02588	22,9	.22318	95,0	.4807	190,8
.228	.22998	102,6	.02610	23,0	.22413	95,0	.4617	189,1
.229	.23101	102,6	.02634	23,1	.22508	94,9	.4429	187,4
0.230	0.23203	102,7	1.02657	23,2	0.22603	94,9	4.4242	185,7
.231	.23306	102,7	.02680	23,3	.22698	94,8	.4057	184,1
.232	.23409	102,7	.02703	23,4	.22793	94,8	.3874	182,5
.233	.23511	102,7	.02727	23,5	.22887	94,8	.3692	180,9
.234	.23614	102,8	.02750	23,6	.22982	94,7	.3512	179,3
0.235	0.23717	102,8	1.02774	23,7	0.23077	94,7	4.3334	177,8
.236	.23820	102,8	.02798	23,8	.23171	94,6	.3157	176,2
.237	.23922	102,8	.02822	23,9	.23266	94,6	.2981	174,7
.238	.24025	102,8	.02846	24,0	.23361	94,5	.2807	173,2
.239	.24128	102,9	.02870	24,1	.23455	94,5	.2635	171,8
0.240	0.24231	102,9	1.02894	24,2	0.23550	94,5	4.2464	170,3
.241	.24334	102,9	.02918	24,3	.23644	94,4	.2294	168,9
.242	.24437	102,9	.02943	24,4	.23738	94,4	.2126	167,5
.243	.24540	103,0	.02967	24,5	.23833	94,3	.1959	166,1
.244	.24643	103,0	.02992	24,6	.23927	94,3	.1794	164,7
0.245	0.24746	103,0	1.03016	24,7	0.24021	94,2	4.1630	163,3
.246	.24849	103,0	.03041	24,8	.24115	94,2	.1467	162,0
.247	.24952	103,1	.03066	25,0	.24210	94,1	.1306	160,6
.248	.25055	103,1	.03091	25,1	.24304	94,1	.1146	159,3
.249	.25158	103,1	.03116	25,2	.24398	94,0	.0987	158,0
0.250	0.25261	103,1	1.03141	25,3	0.24492	94,0	4.0830	156,7
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.250	0.25261	103,1	1.03141	25,3	0.24492	94,0	4.0830	156,
.251	.25364	103,2	.03167	25,4	.24586	94,0	.0674	155
.252	.25468	103,2	.03192	25,5	.24680	93,9	.0519	154
.253	.25571	103,2	.03218	25,6	.24774	93,9	.0365	152
.254	.25674	103,2	.03243	25,7	.24867	93,8	.0213	151
0.255	0.25777	103,3	1.03269	25,8	0.24961	93,8	4.0062	150
.256	.25881	103,3	.03295	25,9	.25055	93,7	3.9912	149
.257	.25984	103,3	.03321	26,0	.25149	93,7	.9763	148
.258	.26087	103,3	.03347	26,1	.25242	93,6	.9616	146
.259	.26191	103,4	.03373	26,2	.25336	93,6	.9470	145
0.260	0.26294	103,4	1.03399	26,3	0.25430	93,5	3.9324	144
.261	.26397	103,4	.03425	26,4	.25523	93,5	.9180	143
.262	.26501	103,5	.03452	26,5	.25617	93,4	.9037	142
.263	.26604	103,5	.03478	26,6	.25710	93,4	.8895	141
.264	.26708	103,5	.03505	26,7	.25803	93,3	.8755	140
0.265	0.26811	103,5	1.03532	26,8	0.25897	93,3	3.8615	139
.266	.26915	103,6	.03559	26,9	.25990	93,2	.8476	138
.267	.27018	103,6	.03586	27,0	.26083	93,2	.8339	137
.268	.27122	103,6	.03613	27,1	.26176	93,1	.8203	135
.269	.27226	103,6	.03640	27,2	.26269	93,1	.8067	134
0.270	0.27329	103,7	1.03667	27,3	0.26362	93,1	3.7933	133
.271	.27433	103,7	.03695	27,4	.26456	93,0	.7799	132
.272	.27537	103,7	.03722	27,5	.26548	93,0	.7667	131
.273	.27640	103,7	.03750	27,6	.26641	92,9	.7536	130
.274	.27744	103,8	.03777	27,7	.26734	92,9	.7405	129
0.275	0.27848	103,8	1.03805	27,8	0.26827	92,8	3.7276	128
.276	.27952	103,8	.03833	28,0	.26920	92,8	.7147	128
.277	.28056	103,9	.03861	28,1	.27013	92,7	.7020	127
.278	.28159	103,9	.03889	28,2	.27105	92,7	.6893	126
.279	.28263	103,9	.03917	28,3	.27198	92,6	.6768	125
0.280	0.28367	103,9	1.03946	28,4	0.27291	92,6	3.6643	124
.281	.28471	104,0	.03974	28,5	.27383	92,5	.6519	123
.282	.28575	104,0	.04003	28,6	.27476	92,5	.6396	122
.283	.28679	104,0	.04031	28,7	.27568	92,4	.6274	121
.284	.28783	104,1	.04060	28,8	.27660	92,4	.6153	120
0.285	0.28887	104,1	1.04089	28,9	0.27753	92,3	3.6033	119
.286	.28991	104,1	.04118	29,0	.27845	92,2	.5913	119
.287	.29096	104,1	.04147	29,1	.27937	92,2	.5795	118
.288	.29200	104,2	.04176	29,2	.28029	92,1	.5677	117
.289	.29304	104,2	.04205	29,3	.28121	92,1	.5560	116
0.290	0.29408	104,2	1.04235	29,4	0.28213	92,0	3.5444	115
.291	.29512	104,3	.04264	29,5	.28305	92,0	.5329	114
.292	.29617	104,3	.04294	29,6	.28397	91,9	.5214	114
.293	.29721	104,3	.04323	29,7	.28489	91,9	.5101	113
.294	.29825	104,4	.04353	29,8	.28581	91,8	.4988	112
0.295	0.29930	104,4	1.04383	29,9	0.28673	91,8	3.4876	111
.296	.30034	104,4	.04413	30,0	.28765	91,7	.4765	110
.297	.30139	104,4	.04443	30,1	.28856	91,7	.4654	110
.298	.30243	104,5	.04473	30,2	.28948	91,6	.4545	109
.299	.30348	104,5	.04503	30,3	.29040	91,6	.4436	108
0.300	0.30452	104,5	1.04534	30,5	0.29131	91,5	3.4327	107
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.300	0.30452	104,5	1.04534	30,5	0.29131	91,5	3.4327	107,8
.301	.30557	104,6	.04564	30,6	.29223	91,5	.4220	107,1
.302	.30661	104,6	.04595	30,7	.29314	91,4	.4113	106,4
.303	.30766	104,6	.04626	30,8	.29406	91,4	.4007	105,6
.304	.30870	104,7	.04656	30,9	.29497	91,3	.3902	104,9
0.305	0.30975	104,7	1.04687	31,0	0.29588	91,2	3.3797	104,2
.306	.31080	104,7	.04718	31,1	.29679	91,2	.3693	103,5
.307	.31185	104,7	.04750	31,2	.29771	91,1	.3590	102,8
.308	.31289	104,8	.04781	31,3	.29862	91,1	.3488	102,1
.309	.31394	104,8	.04812	31,4	.29953	91,0	.3386	101,5
0.310	0.31499	104,8	1.04844	31,5	0.30044	91,0	3.3285	100,8
.311	.31604	104,9	.04875	31,6	.30135	90,9	.3184	100,1
.312	.31709	104,9	.04907	31,7	.30226	90,9	.3085	99,5
.313	.31814	104,9	.04939	31,8	.30316	90,8	.2985	98,8
.314	.31919	105,0	.04970	31,9	.30407	90,8	.2887	98,2
0.315	0.32024	105,0	1.05002	32,0	0.30498	90,7	3.2789	97,5
.316	.32129	105,0	.05034	32,1	.30589	90,6	.2692	96,9
.317	.32234	105,1	.05067	32,2	.30679	90,6	.2595	96,2
.318	.32339	105,1	.05099	32,3	.30770	90,5	.2499	95,6
.319	.32444	105,1	.05131	32,4	.30860	90,5	.2404	95,0
0.320	0.32549	105,2	1.05164	32,5	0.30951	90,4	3.2309	94,4
.321	.32654	105,2	.05196	32,7	.31041	90,4	.2215	93,8
.322	.32759	105,2	.05229	32,8	.31131	90,3	.2122	93,2
.323	.32865	105,3	.05262	32,9	.31222	90,3	.2029	92,6
.324	.32970	105,3	.05295	33,0	.31312	90,2	.1937	92,0
0.325	0.33075	105,3	1.05328	33,1	0.31402	90,1	3.1845	91,4
.326	.33181	105,4	.05361	33,2	.31492	90,1	.1754	90,8
.327	.33286	105,4	.05394	33,3	.31582	90,0	.1663	90,3
.328	.33391	105,4	.05428	33,4	.31672	90,0	.1573	89,7
.329	.33497	105,5	.05461	33,5	.31762	89,9	.1484	89,1
0.330	0.33602	105,5	1.05495	33,6	0.31852	89,9	3.1395	88,6
.331	.33708	105,5	.05528	33,7	.31942	89,8	.1307	88,0
.332	.33813	105,6	.05562	33,8	.32032	89,7	.1219	87,5
.333	.33919	105,6	.05596	33,9	.32121	89,7	.1132	86,9
.334	.34024	105,6	.05630	34,0	.32211	89,6	.1045	86,4
0.335	0.34130	105,7	1.05664	34,1	0.32301	89,6	3.0959	85,8
.336	.34236	105,7	.05698	34,2	.32390	89,5	.0874	85,3
.337	.34342	105,7	.05732	34,3	.32480	89,5	.0789	84,8
.338	.34447	105,8	.05767	34,4	.32569	89,4	.0704	84,3
.339	.34553	105,8	.05801	34,6	.32658	89,3	.0620	83,8
0.340	0.34659	105,8	1.05836	34,7	0.32748	89,3	3.0536	83,2
.341	.34765	105,9	.05871	34,8	.32837	89,2	.0453	82,7
.342	.34871	105,9	.05905	34,9	.32926	89,2	.0371	82,2
.343	.34977	105,9	.05940	35,0	.33015	89,1	.0289	81,7
.344	.35082	106,0	.05975	35,1	.33104	89,0	.0207	81,2
0.345	0.35188	106,0	1.06011	35,2	0.33193	89,0	3.0126	80,8
.346	.35295	106,0	.06046	35,3	.33282	88,9	.0046	80,3
.347	.35401	106,1	.06081	35,4	.33371	88,9	2.9966	79,8
.348	.35507	106,1	.06117	35,5	.33460	88,8	.9886	79,3
.349	.35613	106,2	.06152	35,6	.33549	88,7	.9807	78,8
0.350	0.35719	106,2	1.06188	35,7	0.33638	88,7	2.9729	78,4
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
0.350	0.35719	106,2	1.06188	35,7	0.33638	88,7	2.9729	78,4
.351	.35825	106,2	.06224	35,8	.33726	88,6	.9651	77,9
.352	.35931	106,3	.06259	35,9	.33815	88,6	.9573	77,5
.353	.36038	106,3	.06295	36,0	.33903	88,5	.9496	77,0
.354	.36144	106,3	.06332	36,1	.33992	88,4	.9419	76,5
0.355	0.36250	106,4	1.06368	36,3	0.34080	88,4	2.9343	76,1
.356	.36357	106,4	.06404	36,4	.34169	88,3	.9267	75,7
.357	.36463	106,4	.06440	36,5	.34257	88,3	.9191	75,2
.358	.36570	106,5	.06477	36,6	.34345	88,2	.9116	74,8
.359	.36676	106,5	.06514	36,7	.34433	88,1	.9042	74,3
0.360	0.36783	106,6	1.06550	36,8	0.34521	88,1	2.8968	73,9
.361	.36889	106,6	.06587	36,9	.34609	88,0	.8894	73,5
.362	.36996	106,6	.06624	37,0	.34697	88,0	.8821	73,1
.363	.37102	106,7	.06661	37,1	.34785	87,9	.8748	72,6
.364	.37209	106,7	.06698	37,2	.34873	87,8	.8675	72,2
0.365	0.37316	106,7	1.06736	37,3	0.34961	87,8	2.8603	71,8
.366	.37423	106,8	.06773	37,4	.35049	87,7	.8532	71,4
.367	.37529	106,8	.06810	37,5	.35136	87,7	.8460	71,0
.368	.37636	106,8	.06848	37,6	.35224	87,6	.8390	70,6
.369	.37743	106,9	.06886	37,7	.35312	87,5	.8319	70,2
0.370	0.37850	106,9	1.06923	37,9	0.35399	87,5	2.8249	69,8
.371	.37957	107,0	.06961	38,0	.35487	87,4	.8180	69,4
.372	.38064	107,0	.06999	38,1	.35574	87,3	.8110	69,0
.373	.38171	107,0	.07037	38,2	.35661	87,3	.8042	68,6
.374	.38278	107,1	.07076	38,3	.35749	87,2	.7973	68,2
0.375	0.38385	107,1	1.07114	38,4	0.35836	87,2	2.7905	67,9
.376	.38492	107,2	.07152	38,5	.35923	87,1	.7837	67,5
.377	.38599	107,2	.07191	38,6	.36010	87,0	.7770	67,1
.378	.38707	107,2	.07230	38,7	.36097	87,0	.7703	66,7
.379	.38814	107,3	.07268	38,8	.36184	86,9	.7637	66,4
0.380	0.38921	107,3	1.07307	38,9	0.36271	86,8	2.7570	66,0
.381	.39028	107,3	.07346	39,0	.36358	86,8	.7505	65,7
.382	.39136	107,4	.07385	39,1	.36444	86,7	.7439	65,3
.383	.39243	107,4	.07425	39,2	.36531	86,7	.7374	64,9
.384	.39351	107,5	.07464	39,4	.36618	86,6	.7309	64,6
0.385	0.39458	107,5	1.07503	39,5	0.36704	86,5	2.7245	64,2
.386	.39566	107,5	.07543	39,6	.36791	86,5	.7181	63,9
.387	.39673	107,6	.07582	39,7	.36877	86,4	.7117	63,5
.388	.39781	107,6	.07622	39,8	.36963	86,3	.7054	63,2
.389	.39889	107,7	.07662	39,9	.37050	86,3	.6991	62,8
0.390	0.39996	107,7	1.07702	40,0	0.37136	86,2	2.6928	62,5
.391	.40104	107,7	.07742	40,1	.37222	86,1	.6866	62,2
.392	.40212	107,8	.07782	40,2	.37308	86,1	.6804	61,8
.393	.40319	107,8	.07822	40,3	.37394	86,0	.6742	61,5
.394	.40427	107,9	.07863	40,4	.37480	86,0	.6681	61,2
0.395	0.40535	107,9	1.07903	40,5	0.37566	85,9	2.6620	60,9
.396	.40643	107,9	.07944	40,6	.37652	85,8	.6559	60,5
.397	.40751	108,0	.07984	40,8	.37738	85,8	.6499	60,2
.398	.40859	108,0	.08025	40,9	.37824	85,7	.6438	59,9
.399	.40967	108,1	.08066	41,0	.37909	85,6	.6379	59,6
0.400	0.41075	108,1	1.08107	41,1	0.37995	85,6	2.6319	59,3
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.400	0.41075	108,1	1.08107	41,1	0.37995	85,6	2.6319	59,3
.401	.41183	108,1	.08148	41,2	.38080	85,5	.6260	59,0
.402	.41292	108,2	.08190	41,3	.38166	85,4	.6201	58,7
.403	.41400	108,2	.08231	41,4	.38251	85,4	.6143	58,3
.404	.41508	108,3	.08272	41,5	.38337	85,3	.6085	58,0
0.405	0.41616	108,3	1.08314	41,6	0.38422	85,2	2.6027	57,7
.406	.41725	108,4	.08356	41,7	.38507	85,2	.5969	57,4
.407	.41833	108,4	.08397	41,8	.38592	85,1	.5912	57,1
.408	.41941	108,4	.08439	41,9	.38677	85,0	.5855	56,8
.409	.42050	108,5	.08481	42,0	.38762	85,0	.5798	56,6
0.410	0.42158	108,5	1.08523	42,2	0.38847	84,9	2.5742	56,3
.411	.42267	108,6	.08566	42,3	.38932	84,8	.5686	56,0
.412	.42376	108,6	.08608	42,4	.39017	84,8	.5630	55,7
.413	.42484	108,7	.08650	42,5	.39102	84,7	.5574	55,4
.414	.42593	108,7	.08693	42,6	.39186	84,6	.5519	55,1
0.415	0.42702	108,7	1.08736	42,7	0.39271	84,6	2.5464	54,8
.416	.42810	108,8	.08778	42,8	.39356	84,5	.5409	54,6
.417	.42919	108,8	.08821	42,9	.39440	84,4	.5355	54,3
.418	.43028	108,9	.08864	43,0	.39524	84,4	.5301	54,0
.419	.43137	108,9	.08907	43,1	.39609	84,3	.5247	53,7
0.420	0.43246	109,0	1.08950	43,2	0.39693	84,2	2.5193	53,5
.421	.43355	109,0	.08994	43,4	.39777	84,2	.5140	53,2
.422	.43464	109,0	.09037	43,5	.39861	84,1	.5087	52,9
.423	.43573	109,1	.09081	43,6	.39945	84,0	.5034	52,7
.424	.43682	109,1	.09124	43,7	.40029	84,0	.4982	52,4
0.425	0.43791	109,2	1.09168	43,8	0.40113	83,9	2.4929	52,2
.426	.43900	109,2	.09212	43,9	.40197	83,8	.4877	51,9
.427	.44009	109,3	.09256	44,0	.40281	83,8	.4826	51,6
.428	.44119	109,3	.09300	44,1	.40365	83,7	.4774	51,4
.429	.44228	109,3	.09344	44,2	.40449	83,6	.4723	51,1
0.430	0.44337	109,4	1.09388	44,3	0.40532	83,6	2.4672	50,9
.431	.44447	109,4	.09433	44,4	.40616	83,5	.4621	50,6
.432	.44556	109,5	.09477	44,6	.40699	83,4	.4571	50,4
.433	.44666	109,5	.09522	44,7	.40783	83,4	.4520	50,1
.434	.44775	109,6	.09567	44,8	.40866	83,3	.4470	49,9
0.435	0.44885	109,6	1.09611	44,9	0.40949	83,2	2.4421	49,6
.436	.44995	109,7	.09656	45,0	.41032	83,2	.4371	49,4
.437	.45104	109,7	.09701	45,1	.41115	83,1	.4322	49,2
.438	.45214	109,7	.09747	45,2	.41199	83,0	.4273	48,9
.439	.45324	109,8	.09792	45,3	.41282	83,0	.4224	48,7
0.440	0.45434	109,8	1.09837	45,4	0.41364	82,9	2.4175	48,4
.441	.45543	109,9	.09883	45,5	.41447	82,8	.4127	48,2
.442	.45653	109,9	.09928	45,7	.41530	82,8	.4079	48,0
.443	.45763	110,0	.09974	45,8	.41613	82,7	.4031	47,7
.444	.45873	110,0	.10020	45,9	.41695	82,6	.3983	47,5
0.445	0.45983	110,1	1.10066	46,0	0.41778	82,5	2.3936	47,3
.446	.46093	110,1	.10112	46,1	.41861	82,5	.3889	47,1
.447	.46204	110,2	.10158	46,2	.41943	82,4	.3842	46,8
.448	.46314	110,2	.10204	46,3	.42025	82,3	.3795	46,6
.449	.46424	110,3	.10251	46,4	.42108	82,3	.3749	46,4
0.450	0.46534	110,3	1.10297	46,5	0.42190	82,2	2.3702	46,2
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.450	0.46534	110,3	1.10297	46,5	0.42190	82,2	2.3702	46,2
.451	.46645	110,3	.10344	46,6	.42272	82,1	.3656	46,0
.452	.46755	110,4	.10390	46,8	.42354	82,1	.3610	45,7
.453	.46865	110,4	.10437	46,9	.42436	82,0	.3565	45,5
.454	.46976	110,5	.10484	47,0	.42518	81,9	.3519	45,3
0.455	0.47086	110,5	1.10531	47,1	0.42600	81,9	2.3474	45,1
.456	.47197	110,6	.10578	47,2	.42682	81,8	.3429	44,9
.457	.47307	110,6	.10625	47,3	.42764	81,7	.3384	44,7
.458	.47418	110,7	.10673	47,4	.42845	81,6	.3340	44,5
.459	.47529	110,7	.10720	47,5	.42927	81,6	.3295	44,3
0.460	0.47640	110,8	1.10768	47,6	0.43008	81,5	2.3251	44,1
.461	.47750	110,8	.10816	47,8	.43090	81,4	.3207	43,9
.462	.47861	110,9	.10863	47,9	.43171	81,4	.3164	43,7
.463	.47972	110,9	.10911	48,0	.43253	81,3	.3120	43,5
.464	.48083	111,0	.10959	48,1	.43334	81,2	.3077	43,3
0.465	0.48194	111,0	1.11007	48,2	0.43415	81,2	2.3033	43,1
.466	.48305	111,1	.11056	48,3	.43496	81,1	.2991	42,9
.467	.48416	111,1	.11104	48,4	.43577	81,0	.2948	42,7
.468	.48527	111,2	.11153	48,5	.43658	80,9	.2905	42,5
.469	.48638	111,2	.11201	48,6	.43739	80,9	.2863	42,3
0.470	0.48750	111,2	1.11250	48,7	0.43820	80,8	2.2821	42,1
.471	.48861	111,3	.11299	48,9	.43901	80,7	.2779	41,9
.472	.48972	111,3	.11348	49,0	.43981	80,7	.2737	41,7
.473	.49084	111,4	.11397	49,1	.44062	80,6	.2695	41,5
.474	.49195	111,4	.11446	49,2	.44143	80,5	.2654	41,3
0.475	0.49306	111,5	1.11495	49,3	0.44223	80,4	2.2613	41,1
.476	.49418	111,5	.11544	49,4	.44303	80,4	.2572	40,9
.477	.49530	111,6	.11594	49,5	.44384	80,3	.2531	40,8
.478	.49641	111,6	.11643	49,6	.44464	80,2	.2490	40,6
.479	.49753	111,7	.11693	49,8	.44544	80,2	.2450	40,4
0.480	0.49865	111,7	1.11743	49,9	0.44624	80,1	2.2409	40,2
.481	.49976	111,8	.11793	50,0	.44704	80,0	.2369	40,0
.482	.50088	111,8	.11843	50,1	.44784	79,9	.2329	39,9
.483	.50200	111,9	.11893	50,2	.44864	79,9	.2289	39,7
.484	.50312	111,9	.11943	50,3	.44944	79,8	.2250	39,5
0.485	0.50424	112,0	1.11994	50,4	0.45024	79,7	2.2210	39,3
.486	.50536	112,0	.12044	50,5	.45104	79,7	.2171	39,2
.487	.50648	112,1	.12095	50,6	.45183	79,6	.2132	39,0
.488	.50760	112,1	.12145	50,8	.45263	79,5	.2093	38,8
.489	.50872	112,2	.12196	50,9	.45342	79,4	.2054	38,6
0.490	0.50984	112,2	1.12247	51,0	0.45422	79,4	2.2016	38,5
.491	.51097	112,3	.12298	51,1	.45501	79,3	.1978	38,3
.492	.51209	112,3	.12349	51,2	.45580	79,2	.1939	38,1
.493	.51321	112,4	.12401	51,3	.45659	79,2	.1901	38,0
.494	.51434	112,5	.12452	51,4	.45739	79,1	.1863	37,8
0.495	0.51546	112,5	1.12503	51,5	0.45818	79,0	2.1826	37,6
.496	.51659	112,6	.12555	51,7	.45897	78,9	.1788	37,5
.497	.51771	112,6	.12607	51,8	.45975	78,9	.1751	37,3
.498	.51884	112,7	.12659	51,9	.46054	78,8	.1714	37,1
.499	.51997	112,7	.12711	52,0	.46133	78,7	.1676	37,0
0.500	0.52110	112,8	1.12763	52,1	0.46212	78,6	2.1640	36,8
	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega\ F_0'$	cosh u	$\omega\ F_0'$	tanh u	$\omega\ F_0'$	coth u	$\omega\ F_0'$
0.500	0.52110	112,8	1.12763	52,1	0.46212	78,6	2.1640	36,8
.501	.52222	112,8	.12815	52,2	.46290	78,6	.1603	36,7
.502	.52335	112,9	.12867	52,3	.46369	78,5	.1566	36,5
.503	.52448	112,9	.12919	52,4	.46447	78,4	.1530	36,4
.504	.52561	113,0	.12972	52,6	.46526	78,4	.1493	36,2
0.505	0.52674	113,0	1.13025	52,7	0.46604	78,3	2.1457	36,0
.506	.52787	113,1	.13077	52,8	.46682	78,2	.1421	35,9
.507	.52900	113,1	.13130	52,9	.46760	78,1	.1386	35,7
.508	.53013	113,2	.13183	53,0	.46839	78,1	.1350	35,6
.509	.53127	113,2	.13236	53,1	.46917	78,0	.1314	35,4
0.510	0.53240	113,3	1.13289	53,2	0.46995	77,9	2.1279	35,3
.511	.53353	113,3	.13343	53,4	.47072	77,9	.1244	35,1
.512	.53466	113,4	.13396	53,5	.47150	77,8	.1209	35,0
.513	.53580	113,4	.13450	53,6	.47228	77,7	.1174	34,8
.514	.53693	113,5	.13503	53,7	.47306	77,6	.1139	34,7
0.515	0.53807	113,6	1.13557	53,8	0.47383	77,5	2.1105	34,5
.516	.53920	113,6	.13611	53,9	.47461	77,5	.1070	34,4
.517	.54034	113,7	.13665	54,0	.47538	77,4	.1036	34,3
.518	.54148	113,7	.13719	54,1	.47615	77,3	.1002	34,1
.519	.54262	113,8	.13773	54,3	.47693	77,3	.0968	34,0
0.520	0.54375	113,8	1.13827	54,4	0.47770	77,2	2.0934	33,8
.521	.54489	113,9	.13882	54,5	.47847	77,1	.0900	33,7
.522	.54603	113,9	.13936	54,6	.47924	77,0	.0866	33,5
.523	.54717	114,0	.13991	54,7	.48001	77,0	.0833	33,4
.524	.54831	114,0	.14046	54,8	.48078	76,9	.0799	33,3
0.525	0.54945	114,1	1.14101	54,9	0.48155	76,8	2.0766	33,1
.526	.55059	114,2	.14156	55,1	.48232	76,7	.0733	33,0
.527	.55173	114,2	.14211	55,2	.48308	76,7	.0700	32,9
.528	.55288	114,3	.14266	55,3	.48385	76,6	.0668	32,7
.529	.55402	114,3	.14321	55,4	.48462	76,5	.0635	32,6
0.530	0.55516	114,4	1.14377	55,5	0.48538	76,4	2.0602	32,4
.531	.55631	114,4	.14432	55,6	.48615	76,4	.0570	32,3
.532	.55745	114,5	.14488	55,7	.48691	76,3	.0538	32,2
.533	.55860	114,5	.14544	55,9	.48767	76,2	.0506	32,0
.534	.55974	114,6	.14600	56,0	.48843	76,1	.0474	31,9
0.535	0.56089	114,7	1.14656	56,1	0.48919	76,1	2.0442	31,8
.536	.56204	114,7	.14712	56,2	.48995	76,0	.0410	31,7
.537	.56318	114,8	.14768	56,3	.49071	75,9	.0378	31,5
.538	.56433	114,8	.14825	56,4	.49147	75,8	.0347	31,4
.539	.56548	114,9	.14881	56,5	.49223	75,8	.0316	31,3
0.540	0.56663	114,9	1.14938	56,7	0.49299	75,7	2.0284	31,1
.541	.56778	115,0	.14994	56,8	.49374	75,6	.0253	31,0
.542	.56893	115,1	.15051	56,9	.49450	75,5	.0222	30,9
.543	.57008	115,1	.15108	57,0	.49526	75,5	.0192	30,8
.544	.57123	115,2	.15165	57,1	.49601	75,4	.0161	30,6
0.545	0.57238	115,2	1.15223	57,2	0.49676	75,3	2.0130	30,5
.546	.57354	115,3	.15280	57,4	.49752	75,2	.0100	30,4
.547	.57469	115,3	.15337	57,5	.49827	75,2	.0070	30,3
.548	.57584	115,4	.15395	57,6	.49902	75,1	.0039	30,2
.549	.57700	115,5	.15452	57,7	.49977	75,0	.0009	30,0
0.550	0.57815	115,5	1.15510	57,8	0.50052	74,9	1.9979	29,9
u	tan gd u	$\omega\ F_0'$	sec gd u	$\omega\ F_0'$	sin gd u	$\omega\ F_0'$	csc gd u	$\omega\ F_0'$

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
0.550	0.57815	115,5	1.15510	57,8	0.50052	74,9	1.9979	29,9
.551	.57931	115,6	.15568	57,9	.50127	74,9	.9949	29,8
.552	.58046	115,6	.15626	58,0	.50202	74,8	.9920	29,7
.553	.58162	115,7	.15684	58,2	.50277	74,7	.9890	29,6
.554	.58278	115,7	.15742	58,3	.50351	74,6	.9860	29,4
0.555	0.58393	115,8	1.15801	58,4	0.50426	74,6	1.9831	29,3
.556	.58509	115,9	.15859	58,5	.50500	74,5	.9802	29,2
.557	.58625	115,9	.15918	58,6	.50575	74,4	.9773	29,1
.558	.58741	116,0	.15976	58,7	.50649	74,3	.9744	29,0
.559	.58857	116,0	.16035	58,9	.50724	74,3	.9715	28,9
0.560	0.58973	116,1	1.16094	59,0	0.50798	74,2	1.9686	28,8
.561	.59089	116,2	.16153	59,1	.50872	74,1	.9657	28,6
.562	.59205	116,2	.16212	59,2	.50946	74,0	.9629	28,5
.563	.59322	116,3	.16272	59,3	.51020	74,0	.9600	28,4
.564	.59438	116,3	.16331	59,4	.51094	73,9	.9572	28,3
0.565	0.59554	116,4	1.16390	59,6	0.51168	73,8	1.9544	28,2
.566	.59671	116,5	.16450	59,7	.51242	73,7	.9515	28,1
.567	.59787	116,5	.16510	59,8	.51315	73,7	.9487	28,0
.568	.59904	116,6	.16570	59,9	.51389	73,6	.9459	27,9
.569	.60020	116,6	.16630	60,0	.51462	73,5	.9432	27,8
0.570	0.60137	116,7	1.16690	60,1	0.51536	73,4	1.9404	27,7
.571	.60254	116,7	.16750	60,3	.51609	73,4	.9376	27,5
.572	.60371	116,8	.16810	60,4	.51683	73,3	.9349	27,4
.573	.60487	116,9	.16871	60,5	.51756	73,2	.9321	27,3
.574	.60604	116,9	.16931	60,6	.51829	73,1	.9294	27,2
0.575	0.60721	117,0	1.16992	60,7	0.51902	73,1	1.9267	27,1
.576	.60838	117,1	.17053	60,8	.51975	73,0	.9240	27,0
.577	.60955	117,1	.17113	61,0	.52048	72,9	.9213	26,9
.578	.61073	117,2	.17174	61,1	.52121	72,8	.9186	26,8
.579	.61190	117,2	.17236	61,2	.52194	72,8	.9159	26,7
0.580	0.61307	117,3	1.17297	61,3	0.52267	72,7	1.9133	26,6
.581	.61424	117,4	.17358	61,4	.52339	72,6	.9106	26,5
.582	.61542	117,4	.17420	61,5	.52412	72,5	.9080	26,4
.583	.61659	117,5	.17481	61,7	.52484	72,5	.9053	26,3
.584	.61777	117,5	.17543	61,8	.52557	72,4	.9027	26,2
0.585	0.61894	117,6	1.17605	61,9	0.52629	72,3	1.9001	26,1
.586	.62012	117,7	.17667	62,0	.52701	72,2	.8975	26,0
.587	.62130	117,7	.17729	62,1	.52773	72,2	.8949	25,9
.588	.62247	117,8	.17791	62,2	.52846	72,1	.8923	25,8
.589	.62365	117,9	.17853	62,4	.52918	72,0	.8897	25,7
0.590	0.62483	117,9	1.17916	62,5	0.52990	71,9	1.8872	25,6
.591	.62601	118,0	.17978	62,6	.53061	71,8	.8846	25,5
.592	.62719	118,0	.18041	62,7	.53133	71,8	.8821	25,4
.593	.62837	118,1	.18104	62,8	.53205	71,7	.8795	25,3
.594	.62955	118,2	.18167	63,0	.53277	71,6	.8770	25,2
0.595	0.63073	118,2	1.18230	63,1	0.53348	71,5	1.8745	25,1
.596	.63192	118,3	.18293	63,2	.53420	71,5	.8720	25,0
.597	.63310	118,4	.18356	63,3	.53491	71,4	.8695	24,9
.598	.63428	118,4	.18419	63,4	.53562	71,3	.8670	24,9
.599	.63547	118,5	.18483	63,5	.53634	71,2	.8645	24,8
0.600	0.63665	118,5	1.18547	63,7	0.53705	71,2	1.8620	24,7
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
0.600	0.63665	118,5	1.18547	63,7	0.53705	71,2	1.8620	24,7
.601	.63784	118,6	.18610	63,8	.53776	71,1	.8596	24,6
.602	.63903	118,7	.18674	63,9	.53847	71,0	.8571	24,5
.603	.64021	118,7	.18738	64,0	.53918	70,9	.8547	24,4
.604	.64140	118,8	.18802	64,1	.53989	70,9	.8522	24,3
0.605	0.64259	118,9	1.18866	64,3	0.54060	70,8	1.8498	24,2
.606	.64378	118,9	.18931	64,4	.54131	70,7	.8474	24,1
.607	.64497	119,0	.18995	64,5	.54201	70,6	.8450	24,0
.608	.64616	119,1	.19060	64,6	.54272	70,5	.8426	24,0
.609	.64735	119,1	.19124	64,7	.54342	70,5	.8402	23,9
0.610	0.64854	119,2	1.19189	64,9	0.54413	70,4	1.8378	23,8
.611	.64973	119,3	.19254	65,0	.54483	70,3	.8354	23,7
.612	.65093	119,3	.19319	65,1	.54553	70,2	.8331	23,6
.613	.65212	119,4	.19384	65,2	.54624	70,2	.8307	23,5
.614	.65331	119,4	.19449	65,3	.54694	70,1	.8284	23,4
0.615	0.65451	119,5	1.19515	65,5	0.54764	70,0	1.8260	23,3
.616	.65570	119,6	.19580	65,6	.54834	69,9	.8237	23,3
.617	.65690	119,6	.19646	65,7	.54904	69,9	.8214	23,2
.618	.65810	119,7	.19712	65,8	.54973	69,8	.8191	23,1
.619	.65929	119,8	.19778	65,9	.55043	69,7	.8168	23,0
0.620	0.66049	119,8	1.19844	66,0	0.55113	69,6	1.8145	22,9
.621	.66169	119,9	.19910	66,2	.55182	69,5	.8122	22,8
.622	.66289	120,0	.19976	66,3	.55252	69,5	.8099	22,8
.623	.66409	120,0	.20042	66,4	.55321	69,4	.8076	22,7
.624	.66529	120,1	.20109	66,5	.55391	69,3	.8054	22,6
0.625	0.66649	120,2	1.20175	66,6	0.55460	69,2	1.8031	22,5
.626	.66769	120,2	.20242	66,8	.55529	69,2	.8009	22,4
.627	.66890	120,3	.20309	66,9	.55598	69,1	.7986	22,4
.628	.67010	120,4	.20376	67,0	.55667	69,0	.7964	22,3
.629	.67130	120,4	.20443	67,1	.55736	68,9	.7942	22,2
0.630	0.67251	120,5	1.20510	67,3	0.55805	68,9	1.7919	22,1
.631	.67371	120,6	.20577	67,4	.55874	68,8	.7897	22,0
.632	.67492	120,6	.20645	67,5	.55943	68,7	.7875	22,0
.633	.67613	120,7	.20712	67,6	.56011	68,6	.7853	21,9
.634	.67734	120,8	.20780	67,7	.56080	68,6	.7832	21,8
0.635	0.67854	120,8	1.20848	67,9	0.56149	68,5	1.7810	21,7
.636	.67975	120,9	.20916	68,0	.56217	68,4	.7788	21,6
.637	.68096	121,0	.20984	68,1	.56285	68,3	.7767	21,6
.638	.68217	121,1	.21052	68,2	.56354	68,2	.7745	21,5
.639	.68338	121,1	.21120	68,3	.56422	68,2	.7724	21,4
0.640	0.68459	121,2	1.21189	68,5	0.56490	68,1	1.7702	21,3
.641	.68581	121,3	.21257	68,6	.56558	68,0	.7681	21,3
.642	.68702	121,3	.21326	68,7	.56626	67,9	.7660	21,2
.643	.68823	121,4	.21395	68,8	.56694	67,9	.7639	21,1
.644	.68945	121,5	.21463	68,9	.56762	67,8	.7618	21,0
0.645	0.69066	121,5	1.21532	69,1	0.56829	67,7	1.7597	21,0
.646	.69188	121,6	.21602	69,2	.56897	67,6	.7576	20,9
.647	.69309	121,7	.21671	69,3	.56965	67,6	.7555	20,8
.648	.69431	121,7	.21740	69,4	.57032	67,5	.7534	20,7
.649	.69553	121,8	.21810	69,6	.57100	67,4	.7513	20,7
0.650	0.69675	121,9	1.21879	69,7	0.57167	67,3	1.7493	20,6
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀'	cosh u	ω F₀'	tanh u	ω F₀'	coth u	ω F₀'
0.650	0.69675	121,9	1.21879	69,7	0.57167	67,3	1.7493	20,6
.651	.69797	121,9	.21949	69,8	.57234	67,2	.7472	20,5
.652	.69919	122,0	.22019	69,9	.57301	67,2	.7452	20,5
.653	.70041	122,1	.22089	70,0	.57369	67,1	.7431	20,4
.654	.70163	122,2	.22159	70,2	.57436	67,0	.7411	20,3
0.655	0.70285	122,2	1.22229	70,3	0.57503	66,9	1.7391	20,2
.656	.70407	122,3	.22300	70,4	.57570	66,9	.7370	20,2
.657	.70530	122,4	.22370	70,5	.57636	66,8	.7350	20,1
.658	.70652	122,4	.22441	70,7	.57703	66,7	.7330	20,0
.659	.70775	122,5	.22511	70,8	.57770	66,6	.7310	20,0
0.660	0.70897	122,6	1.22582	70,9	0.57836	66,5	1.7290	19,9
.661	.71020	122,7	.22653	71,0	.57903	66,5	.7270	19,8
.662	.71142	122,7	.22724	71,1	.57969	66,4	.7251	19,8
.663	.71265	122,8	.22795	71,3	.58036	66,3	.7231	19,7
.664	.71388	122,9	.22867	71,4	.58102	66,2	.7211	19,6
0.665	0.71511	122,9	1.22938	71,5	0.58168	66,2	1.7192	19,6
.666	.71634	123,0	.23010	71,6	.58234	66,1	.7172	19,5
.667	.71757	123,1	.23081	71,8	.58300	66,0	.7153	19,4
.668	.71880	123,2	.23153	71,9	.58366	65,9	.7133	19,4
.669	.72003	123,2	.23225	72,0	.58432	65,9	.7114	19,3
0.670	0.72126	123,3	1.23297	72,1	0.58498	65,8	1.7095	19,2
.671	.72250	123,4	.23369	72,2	.58564	65,7	.7075	19,2
.672	.72373	123,4	.23442	72,4	.58629	65,6	.7056	19,1
.673	.72497	123,5	.23514	72,5	.58695	65,5	.7037	19,0
.674	.72620	123,6	.23587	72,6	.58760	65,5	.7018	19,0
0.675	0.72744	123,7	1.23659	72,7	0.58826	65,4	1.6999	18,9
.676	.72868	123,7	.23732	72,9	.58891	65,3	.6980	18,8
.677	.72991	123,8	.23805	73,0	.58957	65,2	.6962	18,8
.678	.73115	123,9	.23878	73,1	.59022	65,2	.6943	18,7
.679	.73239	124,0	.23951	73,2	.59087	65,1	.6924	18,6
0.680	0.73363	124,0	1.24025	73,4	0.59152	65,0	1.6906	18,6
.681	.73487	124,1	.24098	73,5	.59217	64,9	.6887	18,5
.682	.73611	124,2	.24172	73,6	.59282	64,9	.6869	18,5
.683	.73735	124,2	.24245	73,7	.59347	64,8	.6850	18,4
.684	.73860	124,3	.24319	73,9	.59411	64,7	.6832	18,3
0.685	0.73984	124,4	1.24393	74,0	0.59476	64,6	1.6813	18,3
.686	.74109	124,5	.24467	74,1	.59541	64,5	.6795	18,2
.687	.74233	124,5	.24541	74,2	.59605	64,5	.6777	18,1
.688	.74358	124,6	.24616	74,4	.59670	64,4	.6759	18,1
.689	.74482	124,7	.24690	74,5	.59734	64,3	.6741	18,0
0.690	0.74607	124,8	1.24765	74,6	0.59798	64,2	1.6723	18,0
.691	.74732	124,8	.24839	74,7	.59862	64,2	.6705	17,9
.692	.74857	124,9	.24914	74,9	.59927	64,1	.6687	17,8
.693	.74982	125,0	.24989	75,0	.59991	64,0	.6669	17,8
.694	.75107	125,1	.25064	75,1	.60055	63,9	.6652	17,7
0.695	0.75232	125,1	1.25139	75,2	0.60118	63,9	1.6634	17,7
.696	.75357	125,2	.25214	75,4	.60182	63,8	.6616	17,6
.697	.75482	125,3	.25290	75,5	.60246	63,7	.6599	17,6
.698	.75607	125,4	.25365	75,6	.60310	63,6	.6581	17,5
.699	.75733	125,4	.25441	75,7	.60373	63,6	.6564	17,4
0.700	0.75858	125,5	1.25517	75,9	0.60437	63,5	1.6546	17,4
u	tan gd u	ω F₀'	sec gd u	ω F₀'	sin gd u	ω F₀'	csc gd u	ω F₀'

u	sinh u	ω F₀'	cosh u	ω F₀'	tanh u	ω F₀'	coth u	ω F₀'
0.700	0.75858	125,5	1.25517	75,9	0.60437	63,5	1.6546	17,4
.701	.75984	125,6	.25593	76,0	.60500	63,4	.6529	17,3
.702	.76110	125,7	.25669	76,1	.60564	63,3	.6512	17,3
.703	.76235	125,7	.25745	76,2	.60627	63,2	.6494	17,2
.704	.76361	125,8	.25821	76,4	.60690	63,2	.6477	17,1
0.705	0.76487	125,9	1.25898	76,5	0.60753	63,1	1.6460	17,1
.706	.76613	126,0	.25974	76,6	.60816	63,0	.6443	17,0
.707	.76739	126,1	.26051	76,7	.60879	62,9	.6426	17,0
.708	.76865	126,1	.26128	76,9	.60942	62,9	.6409	16,9
.709	.76991	126,2	.26205	77,0	.61005	62,8	.6392	16,9
0.710	0.77117	126,3	1.26282	77,1	0.61068	62,7	1.6375	16,8
.711	.77244	126,4	.26359	77,2	.61130	62,6	.6358	16,8
.712	.77370	126,4	.26436	77,4	.61193	62,6	.6342	16,7
.713	.77497	126,5	.26514	77,5	.61255	62,5	.6325	16,7
.714	.77623	126,6	.26591	77,6	.61318	62,4	.6308	16,6
0.715	0.77750	126,7	1.26669	77,7	0.61380	62,3	1.6292	16,5
.716	.77876	126,7	.26747	77,9	.61443	62,2	.6275	16,5
.717	.78003	126,8	.26825	78,0	.61505	62,2	.6259	16,4
.718	.78130	126,9	.26903	78,1	.61567	62,1	.6242	16,4
.719	.78257	127,0	.26981	78,3	.61629	62,0	.6226	16,3
0.720	0.78384	127,1	1.27059	78,4	0.61691	61,9	1.6210	16,3
.721	.78511	127,1	.27138	78,5	.61753	61,9	.6194	16,2
.722	.78638	127,2	.27216	78,6	.61815	61,8	.6177	16,2
.723	.78766	127,3	.27295	78,8	.61876	61,7	.6161	16,1
.724	.78893	127,4	.27374	78,9	.61938	61,6	.6145	16,1
0.725	0.79020	127,5	1.27453	19,0	0.62000	61,6	1.6129	16,0
.726	.79148	127,5	.27532	79,1	.62061	61,5	.6113	16,0
.727	.79275	127,6	.27611	79,3	.62123	61,4	.6097	15,9
.728	.79403	127,7	.27690	79,4	.62184	61,3	.6081	15,9
.729	.79531	127,8	.27770	79,5	.62245	61,3	.6065	15,8
0.730	0.79659	127,8	1.27849	79,7	0.62307	61,2	1.6050	15,8
.731	.79786	127,9	.27929	79,8	.62368	61,1	.6034	15,7
.732	.79914	128,0	.28009	79,9	.62429	61,0	.6018	15,7
.733	.80042	128,1	.28089	80,0	.62490	61,0	.6003	15,6
.734	.80171	128,2	.28169	80,2	.62551	60,9	.5987	15,6
0.735	0.80299	128,2	1.28249	80,3	0.62611	60,8	1.5972	15,5
.736	.80427	128,3	.28330	80,4	.62672	60,7	.5956	15,5
.737	.80555	128,4	.28410	80,6	.62733	60,6	.5941	15,4
.738	.80684	128,5	.28491	80,7	.62794	60,6	.5925	15,4
.739	.80812	128,6	.28572	80,8	.62854	60,5	.5910	15,3
0.740	0.80941	128,7	1.28652	80,9	0.62915	60,4	1.5895	15,3
.741	.81070	128,7	.28733	81,1	.62975	60,3	.5879	15,2
.742	.81199	128,8	.28815	81,2	.63035	60,3	.5864	15,2
.743	.81327	128,9	.28896	81,3	.63095	60,2	.5849	15,1
.744	.81456	129,0	.28977	81,5	.63156	60,1	.5834	15,1
0.745	0.81585	129,1	1.29059	81,6	0.63216	60,0	1.5819	15,0
.746	.81714	129,1	.29140	81,7	.63276	60,0	.5804	15,0
.747	.81844	129,2	.29222	81,8	.63336	59,9	.5789	14,9
.748	.81973	129,3	.29304	82,0	.63395	59,8	.5774	14,9
.749	.82102	129,4	.29386	82,1	.63455	59,7	.5759	14,8
0.750	0.82232	129,5	1.29468	82,2	0.63515	59,7	1.5744	14,8
u	tan gd u	ω F₀'	sec gd u	ω F₀'	sin gd u	ω F₀'	csc gd u	ω F₀'

u	sinh u	ω F₀'	cosh u	ω F₀'	tanh u	ω F₀'	coth u	ω F₀'
0.750	0.82232	129,5	1.29468	82,2	0.63515	59,7	1.5744	14,8
.751	.82361	129,6	.29551	82,4	.63575	59,6	.5730	14,7
.752	.82491	129,6	.29633	82,5	.63634	59,5	.5715	14,7
.753	.82620	129,7	.29716	82,6	.63694	59,4	.5700	14,6
.754	.82750	129,8	.29798	82,8	.63753	59,4	.5686	14,6
0.755	0.82880	129,9	1.29881	82,9	0.63812	59,3	1.5671	14,6
.756	.83010	130,0	.29964	83,0	.63871	59,2	.5656	14,5
.757	.83140	130,0	.30047	83,1	.63931	59,1	.5642	14,5
.758	.83270	130,1	.30130	83,3	.63990	59,1	.5628	14,4
.759	.83400	130,2	.30214	83,4	.64049	59,0	.5613	14,4
0.760	0.83530	130,3	1.30297	83,5	0.64108	58,9	1.5599	14,3
.761	.83661	130,4	.30381	83,7	.64167	58,8	.5584	14,3
.762	.83791	130,5	.30464	83,8	.64225	58,8	.5570	14,2
.763	.83922	130,5	.30548	83,9	.64284	58,7	.5556	14,2
.764	.84052	130,6	.30632	84,1	.64343	58,6	.5542	14,2
0.765	0.84183	130,7	1.30716	84,2	0.64401	58,5	1.5528	14,1
.766	.84314	130,8	.30801	84,3	.64460	58,4	.5514	14,1
.767	.84445	130,9	.30885	84,4	.64518	58,4	.5500	14,0
.768	.84576	131,0	.30970	84,6	.64576	58,3	.5486	14,0
.769	.84707	131,1	.31054	84,7	.64635	58,2	.5472	13,9
0.770	0.84838	131,1	1.31139	84,8	0.64693	58,1	1.5458	13,9
.771	.84969	131,2	.31224	85,0	.64751	58,1	.5444	13,9
.772	.85100	131,3	.31309	85,1	.64809	58,0	.5430	13,8
.773	.85231	131,4	.31394	85,2	.64867	57,9	.5416	13,8
.774	.85363	131,5	.31479	85,4	.64925	57,8	.5402	13,7
0.775	0.85494	131,6	1.31565	85,5	0.64983	57,8	1.5389	13,7
.776	.85626	131,7	.31650	85,6	.65040	57,7	.5375	13,6
.777	.85758	131,7	.31736	85,8	.65098	57,6	.5361	13,6
.778	.85889	131,8	.31822	85,9	.65156	57,5	.5348	13,6
.779	.86021	131,9	.31908	86,0	.65213	57,5	.5334	13,5
0.780	0.86153	132,0	1.31994	86,2	0.65271	57,4	1.5321	13,5
.781	.86285	132,1	.32080	86,3	.65328	57,3	.5307	13,4
.782	.86417	132,2	.32166	86,4	.65385	57,2	.5294	13,4
.783	.86550	132,3	.32253	86,5	.65443	57,2	.5281	13,3
.784	.86682	132,3	.32340	86,7	.65500	57,1	.5267	13,3
0.785	0.86814	132,4	1.32426	86,8	0.65557	57,0	1.5254	13,3
.786	.86947	132,5	.32513	86,9	.65614	56,9	.5241	13,2
.787	.87079	132,6	.32600	87,1	.65671	56,9	.5228	13,2
.788	.87212	132,7	.32687	87,2	.65727	56,8	.5214	13,1
.789	.87345	132,8	.32775	87,3	.65784	56,7	.5201	13,1
0.790	0.87478	132,9	1.32862	87,5	0.65841	56,6	1.5188	13,1
.791	.87610	132,9	.32950	87,6	.65898	56,6	.5175	13,0
.792	.87743	133,0	.33037	87,7	.65954	56,5	.5162	13,0
.793	.87877	133,1	.33125	87,9	.66011	56,4	.5149	12,9
.794	.88010	133,2	.33213	88,0	.66067	56,4	.5136	12,9
0.795	0.88143	133,3	1.33301	88,1	0.66123	56,3	1.5123	12,9
.796	.88276	133,4	.33389	88,3	.66179	56,2	.5110	12,8
.797	.88410	133,5	.33478	88,4	.66236	56,1	.5098	12,8
.798	.88543	133,6	.33566	88,5	.66292	56,1	.5085	12,8
.799	.88677	133,7	.33655	88,7	.66348	56,0	.5072	12,7
0.800	0.88811	133,7	1.33743	88,8	0.66404	55,9	1.5059	12,7
u	tan gd u	ω F₀'	sec gd u	ω F₀'	sin gd u	ω F₀'	csc gd u	ω F₀'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.800	0.88811	133,7	1.33743	88,8	0.66404	55,9	1.5059	12,7
.801	.88944	133,8	.33832	88,9	.66460	55,8	.5047	12,6
.802	.89078	133,9	.33921	89,1	.66515	55,8	.5034	12,6
.803	.89212	134,0	.34011	89,2	.66571	55,7	.5022	12,6
.804	.89346	134,1	.34100	89,3	.66627	55,6	.5009	12,5
0.805	0.89480	134,2	1.34189	89,5	0.66682	55,5	1.4996	12,5
.806	.89615	134,3	.34279	89,6	.66738	55,5	.4984	12,5
.807	.89749	134,4	.34368	89,7	.66793	55,4	.4972	12,4
.808	.89883	134,5	.34458	89,9	.66849	55,3	.4959	12,4
.809	.90018	134,5	.34548	90,0	.66904	55,2	.4947	12,3
0.810	0.90152	134,6	1.34638	90,2	0.66959	55,2	1.4935	12,3
.811	.90287	134,7	.34729	90,3	.67014	55,1	.4922	12,3
.812	.90422	134,8	.34819	90,4	.67069	55,0	.4910	12,2
.813	.90557	134,9	.34909	90,6	.67124	54,9	.4898	12,2
.814	.90692	135,0	.35000	90,7	.67179	54,9	.4886	12,2
0.815	0.90827	135,1	1.35091	90,8	0.67234	54,8	1.4873	12,1
.816	.90962	135,2	.35182	91,0	.67289	54,7	.4861	12,1
.817	.91097	135,3	.35273	91,1	.67343	54,6	.4849	12,0
.818	.91232	135,4	.35364	91,2	.67398	54,6	.4837	12,0
.819	.91368	135,5	.35455	91,4	.67453	54,5	.4825	12,0
0.820	0.91503	135,5	1.35547	91,5	0.67507	54,4	1.4813	11,9
.821	.91639	135,6	.35638	91,6	.67561	54,4	.4801	11,9
.822	.91775	135,7	.35730	91,8	.67616	54,3	.4789	11,9
.823	.91910	135,8	.35822	91,9	.67670	54,2	.4778	11,8
.824	.92046	135,9	.35914	92,0	.67724	54,1	.4766	11,8
0.825	0.92182	136,0	1.36006	92,2	0.67778	54,1	1.4754	11,8
.826	.92318	136,1	.36098	92,3	.67832	54,0	.4742	11,7
.827	.92454	136,2	.36190	92,5	.67886	53,9	.4731	11,7
.828	.92591	136,3	.36283	92,6	.67940	53,8	.4719	11,7
.829	.92727	136,4	.36376	92,7	.67994	53,8	.4707	11,6
0.830	0.92863	136,5	1.36468	92,9	0.68048	53,7	1.4696	11,6
.831	.93000	136,6	.36561	93,0	.68101	53,6	.4684	11,6
.832	.93137	136,7	.36654	93,1	.68155	53,5	.4672	11,5
.833	.93273	136,7	.36748	93,3	.68208	53,5	.4661	11,5
.834	.93410	136,8	.36841	93,4	.68262	53,4	.4649	11,5
0.835	0.93547	136,9	1.36934	93,5	0.68315	53,3	1.4638	11,4
.836	.93684	137,0	.37028	93,7	.68368	53,3	.4627	11,4
.837	.93821	137,1	.37122	93,8	.68422	53,2	.4615	11,4
.838	.93958	137,2	.37216	94,0	.68475	53,1	.4604	11,3
.839	.94095	137,3	.37310	94,1	.68528	53,0	.4593	11,3
0.840	0.94233	137,4	1.37404	94,2	0.68581	53,0	1.4581	11,3
.841	.94370	137,5	.37498	94,4	.68634	52,9	.4570	11,2
.842	.94508	137,6	.37593	94,5	.68687	52,8	.4559	11,2
.843	.94645	137,7	.37687	94,6	.68739	52,7	.4548	11,2
.844	.94783	137,8	.37782	94,8	.68792	52,7	.4537	11,1
0.845	0.94921	137,9	1.37877	94,9	0.68845	52,6	1.4525	11,1
.846	.95059	138,0	.37972	95,1	.68897	52,5	.4514	11,1
.847	.95197	138,1	.38067	95,2	.68950	52,5	.4503	11,0
.848	.95335	138,2	.38162	95,3	.69002	52,4	.4492	11,0
.949	.95473	138,3	.38258	95,5	.69055	52,3	.4481	11,0
0.850	0.95612	138,4	1.38353	95,6	0.69107	52,2	1.4470	10,9
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
0.850	0.95612	138,4	1.38353	95,6	0.69107	52,2	1.4470	10,9
.851	.95750	138,4	.38449	95,7	.69159	52,2	.4459	10,9
.852	.95888	138,5	.38545	95,9	.69211	52,1	.4449	10,9
.853	.96027	138,6	.38641	96,0	.69263	52,0	.4438	10,8
.854	.96166	138,7	.38737	96,2	.69315	52,0	.4427	10,8
0.855	0.96305	138,8	1.38833	96,3	0.69367	51,9	1.4416	10,8
.856	.96443	138,9	.38929	96,4	.69419	51,8	.4405	10,8
.857	.96582	139,0	.39026	96,6	.69471	51,7	.4395	10,7
.858	.96721	139,1	.39122	96,7	.69523	51,7	.4384	10,7
.859	.96861	139,2	.39219	96,9	.69574	51,6	.4373	10,7
0.860	0.97000	139,3	1.39316	97,0	0.69626	51,5	1.4362	10,6
.861	.97139	139,4	.39413	97,1	.69677	51,5	.4352	10,6
.862	.97279	139,5	.39510	97,3	.69729	51,4	.4341	10,6
.863	.97418	139,6	.39608	97,4	.69780	51,3	.4331	10,5
.864	.97558	139,7	.39705	97,6	.69831	51,2	.4320	10,5
0.865	0.97698	139,8	1.39803	97,7	0.69882	51,2	1.4310	10,5
.866	.97838	139,9	.39901	97,8	.69934	51,1	.4299	10,4
.867	.97978	140,0	.39999	98,0	.69985	51,0	.4289	10,4
.868	.98118	140,1	.40097	98,1	.70036	51,0	.4278	10,4
.869	.98258	140,2	.40195	98,3	.70087	50,9	.4268	10,4
0.870	0.98398	140,3	1.40293	98,4	0.70137	50,8	1.4258	10,3
.871	.98538	140,4	.40392	98,5	.70188	50,7	.4247	10,3
.872	.98679	140,5	.40490	98,7	.70239	50,7	.4237	10,3
.873	.98819	140,6	.40589	98,8	.70290	50,6	.4227	10,2
.874	.98960	140,7	.40688	99,0	.70340	50,5	.4217	10,2
0.875	0.99101	140,8	1.40787	99,1	0.70391	50,5	1.4206	10,2
.876	.99241	140,9	.40886	99,2	.70441	50,4	.4196	10,2
.877	.99382	141,0	.40985	99,4	.70491	50,3	.4185	10,1
.878	.99523	141,1	.41085	99,5	.70542	50,2	.4176	10,1
.879	.99665	141,2	.41184	99,7	.70592	50,2	.4166	10,1
0.880	0.99806	141,3	1.41284	99,8	0.70642	50,1	1.4156	10,0
.881	.99947	141,4	.41384	99,9	.70692	50,0	.4146	10,0
.882	1.00089	141,5	.41484	100,1	.70742	50,0	.4136	10,0
.883	.00230	141,6	.41584	100,2	.70792	49,9	.4126	10,0
.884	.00372	141,7	.41684	100,4	.70842	49,8	.4116	9,9
0.885	1.00514	141,8	1.41785	100,5	0.70892	49,7	1.4106	9,9
.886	.00655	141,9	.41886	100,7	.70941	49,7	.4096	9,9
.887	.00797	142,0	.41986	100,8	.70991	49,6	.4086	9,8
.888	.00939	142,1	.42087	100,9	.71040	49,5	.4076	9,8
.889	.01081	142,2	.42188	101,1	.71090	49,5	.4067	9,8
0.890	1.01224	142,3	1.42289	101,2	0.71139	49,4	1.4057	9,8
.891	.01366	142,4	.42391	101,4	.71189	49,3	.4047	9,7
.892	.01508	142,5	.42492	101,5	.71238	49,3	.4037	9,7
.893	.01651	142,6	.42594	101,7	.71287	49,2	.4028	9,7
.894	.01794	142,7	.42695	101,8	.71336	49,1	.4018	9,7
0.895	1.01936	142,8	1.42797	101,9	0.71385	49,0	1.4008	9,6
.896	.02079	142,9	.42899	102,1	.71434	49,0	.3999	9,6
.897	.02222	143,0	.43001	102,2	.71483	48,9	.3989	9,6
.898	.02365	143,1	.43104	102,4	.71532	48,8	.3980	9,5
.899	.02508	143,2	.43206	102,5	.71581	48,8	.3970	9,5
0.900	1.02652	143,3	1.43309	102,7	0.71630	48,7	1.3961	9,5
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
0.900	1.02652	143	1.43309	103	0.71630	48,7	1.3961	9,5
.901	.02795	143	.43411	103	.71678	48,6	.3951	9,5
.902	.02938	144	.43514	103	.71727	48,6	.3942	9,4
.903	.03082	144	.43617	103	.71776	48,5	.3932	9,4
.904	.03226	144	.43720	103	.71824	48,4	.3923	9,4
0.905	1.03370	144	1.43824	103	0.71872	48,3	1.3914	9,4
.906	.03513	144	.43927	104	.71921	48,3	.3904	9,3
.907	.03657	144	.44031	104	.71969	48,2	.3895	9,3
.908	.03801	144	.44134	104	.72017	48,1	.3886	9,3
.909	.03946	144	.44238	104	.72065	48,1	.3876	9,3
0.910	1.04090	144	1.44342	104	0.72113	48,0	1.3867	9,2
.911	.04234	144	.44446	104	.72161	47,9	.3858	9,2
.912	.04379	145	.44551	104	.72209	47,9	.3849	9,2
.913	.04523	145	.44655	105	.72257	47,8	.3840	9,2
.914	.04668	145	.44760	105	.72305	47,7	.3830	9,1
0.915	1.04813	145	1.44865	105	0.72352	47,7	1.3821	9,1
.916	.04958	145	.44969	105	.72400	47,6	.3812	9,1
.917	.05103	145	.45075	105	.72448	47,5	.3803	9,1
.918	.05248	145	.45180	105	.72495	47,4	.3794	9,0
.919	.05393	145	.45285	105	.72542	47,4	.3785	9,0
0.920	1.05539	145	1.45390	106	0.72590	47,3	1.3776	9,0
.921	.05684	145	.45496	106	.72637	47,2	.3767	9,0
.922	.05830	146	.45602	106	.72684	47,2	.3758	8,9
.923	.05975	146	.45708	106	.72731	47,1	.3749	8,9
.924	.06121	146	.45814	106	.72778	47,0	.3740	8,9
0.925	1.06267	146	1.45920	106	0.72825	47,0	1.3731	8,9
.926	.06413	146	.46026	106	.72872	46,9	.3723	8,8
.927	.06559	146	.46133	107	.72919	46,8	.3714	8,8
.928	.06705	146	.46239	107	.72966	46,8	.3705	8,8
.929	.06851	146	.46346	107	.73013	46,7	.3696	8,8
0.930	1.06998	146	1.46453	107	0.73059	46,6	1.3687	8,7
.931	.07144	147	.46560	107	.73106	46,6	.3679	8,7
.932	.07291	147	.46667	107	.73153	46,5	.3670	8,7
.933	.07438	147	.46775	107	.73199	46,4	.3661	8,7
.934	.07584	147	.46882	108	.73245	46,4	.3653	8,6
0.935	1.07731	147	1.46990	108	0.73292	46,3	1.3644	8,6
.936	.07878	147	.47098	108	.73338	46,2	.3636	8,6
.937	.08025	147	.47206	108	.73384	46,1	.3627	8,6
.938	.08173	147	.47314	108	.73430	46,1	.3618	8,5
.939	.08320	147	.47422	108	.73476	46,0	.3610	8,5
0.940	1.08468	148	1.47530	108	0.73522	45,9	1.3601	8,5
.941	.08615	148	.47639	109	.73568	45,9	.3593	8,5
.942	.08763	148	.47748	109	.73614	45,8	.3584	8,5
.943	.08911	148	.47857	109	.73660	45,7	.3576	8,4
.944	.09059	148	.47966	109	.73705	45,7	.3568	8,4
0.945	1.09207	148	1.48075	109	0.73751	45,6	1.3559	8,4
.946	.09355	148	.48184	109	.73797	45,5	.3551	8,4
.947	.09503	148	.48293	110	.73842	45,5	.3542	8,3
.948	.09651	148	.48403	110	.73888	45,4	.3534	8,3
.949	.09800	149	.48513	110	.73933	45,3	.3526	8,3
0.950	1.09948	149	1.48623	110	0.73978	45,3	1.3517	8,3
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
0.950	1.09948	149	1.48623	110	0.73978	45,3	1.3517	8,3
.951	.10097	149	.48733	110	.74024	45,2	.3509	8,2
.952	.10246	149	.48843	110	.74069	45,1	.3501	8,2
.953	.10395	149	.48953	110	.74114	45,1	.3493	8,2
.954	.10544	149	.49064	111	.74159	45,0	.3485	8,2
0.955	1.10693	149	1.49174	111	0.74204	44,9	1.3476	8,2
.956	.10842	149	.49285	111	.74249	44,9	.3468	8,1
.957	.10991	149	.49396	111	.74294	44,8	.3460	8,1
.958	.11141	150	.49507	111	.74338	44,7	.3452	8,1
.959	.11291	150	.49618	111	.74383	44,7	.3444	8,1
0.960	1.11440	150	1.49729	111	0.74428	44,6	1.3436	8,1
.961	.11590	150	.49841	112	.74472	44,5	.3428	8,0
.962	.11740	150	.49953	112	.74517	44,5	.3420	8,0
.963	.11890	150	.50064	112	.74561	44,4	.3412	8,0
.964	.12040	150	.50176	112	.74606	44,3	.3404	8,0
0.965	1.12190	150	1.50289	112	0.74650	44,3	1.3396	7,9
.966	.12341	150	.50401	112	.74694	44,2	.3388	7,9
.967	.12491	151	.50513	112	.74738	44,1	.3380	7,9
.968	.12642	151	.50626	113	.74782	44,1	.3372	7,9
.969	.12792	151	.50739	113	.74826	44,0	.3364	7,9
0.970	1.12943	151	1.50851	113	0.74870	43,9	1.3356	7,8
.971	.13094	151	.50964	113	.74914	43,9	.3349	7,8
.972	.13245	151	.51078	113	.74958	43,8	.3341	7,8
.973	.13396	151	.51191	113	.75002	43,7	.3333	7,8
.974	.13547	151	.51304	114	.75046	43,7	.3325	7,8
0.975	1.13699	151	1.51418	114	0.75089	43,6	1.3317	7,7
.976	.13850	152	.51532	114	.75133	43,6	.3310	7,7
.977	.14002	152	.51646	114	.75176	43,5	.3302	7,7
.978	.14154	152	.51760	114	.75220	43,4	.3294	7,7
.979	.14305	152	.51874	114	.75263	43,4	.3287	7,7
0.980	1.14457	152	1.51988	144	0.75307	43,3	1.3279	7,6
.981	.14609	152	.52103	115	.75350	43,2	.3271	7,6
.982	.14761	152	.52218	115	.75393	43,2	.3264	7,6
.983	.14914	152	.52332	115	.75436	43,1	.3256	7,6
.984	.15066	152	.52447	115	.75479	43,0	.3249	7,6
0.985	1.15219	153	1.52563	115	0.75522	43,0	1.3241	7,5
.986	.15371	153	.52678	115	.75565	42,9	.3234	7,5
.987	.15524	153	.52793	116	.75608	42,8	.3226	7,5
.988	.15677	153	.52909	116	.75651	42,8	.3219	7,5
.989	.15830	153	.53025	116	.75694	42,7	.3211	7,5
0.990	1.15983	153	1.53141	116	0.75736	42,6	1.3204	7,4
.991	.16136	153	.53257	116	.75779	42,6	.3196	7,4
.992	.16289	153	.53373	116	.75821	42,5	.3189	7,4
.993	.16443	153	.53489	116	.75864	42,4	.3182	7,4
.994	.16596	154	.53606	117	.75906	42,4	.3174	7,4
0.995	1.16750	154	1.53722	117	0.75949	42,3	1.3167	7,3
.996	.16904	154	.53839	117	.75991	42,3	.3159	7,3
.997	.17058	154	.53956	117	.76033	42,2	.3152	7,3
.998	.17212	154	.54073	117	.76075	42,1	.3145	7,3
.999	.17366	154	.54191	117	.76117	42,1	.3138	7,3
1.000	1.17520	154	1.54308	118	0.76159	42,0	1.3130	7,2
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
1.000	1.17520	154	1.54308	118	0.76159	42,0	1.3130	7,2
.001	.17674	154	.54426	118	.76201	41,9	.3123	7,2
.002	.17829	155	.54543	118	.76243	41,9	.3116	7,2
.003	.17984	155	.54661	118	.76285	41,8	.3109	7,2
.004	.18138	155	.54779	118	.76327	41,7	.3102	7,2
1.005	1.18293	155	1.54898	118	0.76369	41,7	1.3094	7,1
.006	.18448	155	.55016	118	.76410	41,6	.3087	7,1
.007	.18603	155	.55134	119	.76452	41,6	.3080	7,1
.008	.18758	155	.55253	119	.76493	41,5	.3073	7,1
.009	.18914	155	.55372	119	.76535	41,4	.3066	7,1
1.010	1.19069	155	1.55491	119	0.76576	41,4	1.3059	7,1
.011	.19225	156	.55610	119	.76618	41,3	.3052	7,0
.012	.19380	156	.55729	119	.76659	41,2	.3045	7,0
.013	.19536	156	.55849	120	.76700	41,2	.3038	7,0
.014	.19692	156	.55969	120	.76741	41,1	.3031	7,0
1.015	1.19848	156	1.56088	120	0.76782	41,0	1.3024	7,0
.016	.20004	156	.56208	120	.76823	41,0	.3017	6,9
.017	.20160	156	.56328	120	.76864	40,9	.3010	6,9
.018	.20317	156	.56449	120	.76905	40,9	.3003	6,9
.019	.20473	157	.56569	120	.76946	40,8	.2996	6,9
1.020	1.20630	157	1.56689	121	0.76987	40,7	1.2989	6,9
.021	.20787	157	.56810	121	.77027	40,7	.2982	6,9
.022	.20944	157	.56931	121	.77068	40,6	.2976	6,8
.023	.21101	157	.57052	121	.77109	40,5	.2969	6,8
.024	.21258	157	.57173	121	.77149	40,5	.2962	6,8
1.025	1.21415	157	1.57295	121	0.77190	40,4	1.2955	6,8
.026	.21572	157	.57416	122	.77230	40,4	.2948	6,8
.027	.21730	158	.57538	122	.77270	40,3	.2942	6,7
.028	.21887	158	.57660	122	.77310	40,2	.2935	6,7
.029	.22045	158	.57782	122	.77351	40,2	.2928	6,7
1.030	1.22203	158	1.57904	122	0.77391	40,1	1.2921	6,7
.031	.22361	158	.58026	122	.77431	40,0	.2915	6,7
.032	.22519	158	.58148	123	.77471	40,0	.2908	6,7
.033	.22677	158	.58271	123	.77511	39,9	.2901	6,6
.034	.22836	158	.58394	123	.77551	39,9	.2895	6,6
1.035	1.22994	159	1.58517	123	0.77591	39,8	1.2888	6,6
.036	.23153	159	.58640	123	.77630	39,7	.2882	6,6
.037	.23311	159	.58763	123	.77670	39,7	.2875	6,6
.038	.23470	159	.58886	123	.77710	39,6	.2868	6,6
.039	.23629	159	.59010	124	.77749	39,6	.2862	6,5
1.040	1.23788	159	1.59134	124	0.77789	39,5	1.2855	6,5
.041	.23947	159	.59257	124	.77828	39,4	.2849	6,5
.042	.24107	159	.59381	124	.77858	39,4	.2842	6,5
.043	.24266	160	.59506	124	.77907	39,3	.2836	6,5
.044	.24426	160	.59630	124	.77946	39,2	.2829	6,5
1.045	1.24585	160	1.59755	125	0.77985	39,2	1.2823	6,4
.046	.24745	160	.59879	125	.78025	39,1	.2816	6,4
.047	.24905	160	.60004	125	.78064	39,1	.2810	6,4
.048	.25065	160	.60129	125	.78103	39,0	.2804	6,4
.049	.25225	160	.60254	125	.78142	38,9	.2797	6,4
1.050	1.25386	160	1.60379	125	0.78181	38,9	1.2791	6,4
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.050	1.25386	160	1.60379	125	0.78181	38,9	1.2791	6,4
.051	.25546	161	.60505	126	.78219	38,8	.2785	6,3
.052	.25707	161	.60631	126	.78258	38,8	.2778	6,3
.053	.25867	161	.60756	126	.78297	38,7	.2772	6,3
.054	.26028	161	.60882	126	.78336	38,6	.2766	6,3
1.055	1.26189	161	1.61008	126	0.78374	38,6	1.2759	6,3
.056	.26350	161	.61135	126	.78413	38,5	.2753	6,3
.057	.26511	161	.61261	127	.78451	38,4	.2747	6,2
.058	.26673	161	.61388	127	.78490	38,4	.2741	6,2
.059	.26834	162	.61514	127	.78528	38,3	.2734	6,2
1.060	1.26996	162	1.61641	127	0.78566	38,3	1.2728	6,2
.061	.27157	162	.61768	127	.78605	38,2	.2722	6,2
.062	.27319	162	.61896	127	.78643	38,2	.2716	6,2
.063	.27481	162	.62023	127	.78681	38,1	.2710	6,2
.064	.27643	162	.62151	128	.78719	38,0	.2703	6,1
1.065	1.27806	162	1.62278	128	0.78757	38,0	1.2697	6,1
.066	.27968	162	.62406	128	.78795	37,9	.2691	6,1
.067	.28130	163	.62534	128	.78833	37,9	.2685	6,1
.068	.28293	163	.62662	128	.78871	37,8	.2679	6,1
.069	.28456	163	.62791	128	.78908	37,7	.2673	6,1
1.070	1.28619	163	1.62919	129	0.78946	37,7	1.2667	6,0
.071	.28782	163	.63048	129	.78984	37,6	.2661	6,0
.072	.28945	163	.63177	129	.79021	37,6	.2655	6,0
.073	.29108	163	.63306	129	.79059	37,5	.2649	6,0
.074	.29271	163	.63435	129	.79096	37,4	.2643	6,0
1.075	1.29435	164	1.63565	129	0.79134	37,4	1.2637	6,0
.076	.29598	164	.63694	130	.79171	37,3	.2631	6,0
.077	.29762	164	.63824	130	.79208	37,3	.2625	5,9
.078	.29926	164	.63954	130	.79246	37,2	.2619	5,9
.079	.30090	164	.64084	130	.79283	37,1	.2613	5,9
1.080	1.30254	164	1.64214	130	0.79320	37,1	1.2607	5,9
.081	.30418	164	.64344	130	.79357	37,0	.2601	5,9
.082	.30583	164	.64475	131	.79394	37,0	.2595	5,9
.083	.30747	165	.64605	131	.79431	36,9	.2590	5,8
.084	.30912	165	.64736	131	.79468	36,8	.2584	5,8
1.085	1.31077	165	1.64867	131	0.79505	36,8	1.2578	5,8
.086	.31242	165	.64998	131	.79541	36,7	.2572	5,8
.087	.31407	165	.65130	131	.79578	36,7	.2566	5,8
.088	.31572	165	.65261	132	.79615	36,6	.2560	5,8
.089	.31737	165	.65393	132	.79651	36,6	.2555	5,8
1.090	1.31903	166	1.65525	132	0.79688	36,5	1.2549	5,7
.091	.32068	166	.65657	132	.79724	36,4	.2543	5,7
.092	.32234	166	.65789	132	.79761	36,4	.2538	5,7
.093	.32400	166	.65921	132	.79797	36,3	.2532	5,7
.094	.32566	166	.66053	133	.79833	36,3	.2526	5,7
1.095	1.32732	166	1.66186	133	0.79870	36,2	1.2520	5,7
.096	.32898	166	.66319	133	.79906	36,2	.2515	5,7
.097	.33065	166	.66452	133	.79942	36,1	.2509	5,6
.098	.33231	167	.66585	133	.79978	36,0	.2503	5,6
.099	.33398	167	.66718	133	.80014	36,0	.2498	5,6
1.100	1.33565	167	1.66852	134	0.80050	35,9	1.2492	5,6
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.100	1.33565	167	1.66852	134	0.80050	35,9	1.2492	5,6
.101	.33732	167	.66986	134	.80086	35,9	.2487	5,6
.102	.33899	167	.67119	134	.80122	35,8	.2481	5,6
.103	.34066	167	.67253	134	.80157	35,7	.2475	5,6
.104	.34233	167	.67387	134	.80193	35,7	.2470	5,5
1.105	1.34401	168	1.67522	134	0.80229	35,6	1.2464	5,5
.106	.34568	168	.67656	135	.80264	35,6	.2459	5,5
.107	.34736	168	.67791	135	.80300	35,5	.2453	5,5
.108	.34904	168	.67926	135	.80335	35,5	.2448	5,5
.109	.35072	168	.68061	135	.80371	35,4	.2442	5,5
1.110	1.35240	168	1.68196	135	0.80406	35,3	1.2437	5,5
.111	.35408	168	.68331	135	.80442	35,3	.2431	5,5
.112	.35577	168	.68467	136	.80477	35,2	.2426	5,4
.113	.35745	169	.68602	136	.80512	35,2	.2421	5,4
.114	.35914	169	.68738	136	.80547	35,1	.2415	5,4
1.115	1.36083	169	1.68874	136	0.80582	35,1	1.2410	5,4
.116	.36252	169	.69010	136	.80617	35,0	.2404	5,4
.117	.36421	169	.69147	136	.80652	35,0	.2399	5,4
.118	.36590	169	.69283	137	.80687	34,9	.2394	5,4
.119	.36759	169	.69420	137	.80722	34,8	.2388	5,3
1.120	1.36929	170	1.69557	137	0.80757	34,8	1.2383	5,3
.121	.37098	170	.69694	137	.80792	34,7	.2378	5,3
.122	.37268	170	.69831	137	.80826	34,7	.2372	5,3
.123	.37438	170	.69968	137	.80861	34,6	.2367	5,3
.124	.37608	170	.70106	138	.80896	34,6	.2362	5,3
1.125	1.37778	170	1.70243	138	0.80930	34,5	1.2356	5,3
.126	.37949	170	.70381	138	.80965	34,4	.2351	5,3
.127	.38119	171	.70519	138	.80999	34,4	.2346	5,2
.128	.38290	171	.70658	138	.81033	34,3	.2341	5,2
.129	.38460	171	.70796	138	.81068	34,3	.2335	5,2
1.130	1.38631	171	1.70934	139	0.81102	34,2	1.2330	5,2
.131	.38802	171	.71073	139	.81136	34,2	.2325	5,2
.132	.38973	171	.71212	139	.81170	34,1	.2320	5,2
.133	.39145	171	.71351	139	.81204	34,1	.2315	5,2
.134	.39316	171	.71490	139	.81238	34,0	.2309	5,2
1.135	1.39488	172	1.71630	139	0.81272	33,9	1.2304	5,1
.136	.39659	172	.71769	140	.81306	33,9	.2299	5,1
.137	.39831	172	.71909	140	.81340	33,8	.2294	5,1
.138	.40003	172	.72049	140	.81374	33,8	.2289	5,1
.139	.40175	172	.72189	140	.81408	33,7	.2284	5,1
1.140	1.40347	172	1.72329	140	0.81441	33,7	1.2279	5,1
.141	.40520	172	.72470	141	.81475	33,6	.2274	5,1
.142	.40692	173	.72610	141	.81509	33,6	.2269	5,1
.143	.40865	173	.72751	141	.81542	33,5	.2264	5,0
.144	.41038	173	.72892	141	.81576	33,5	.2259	5,0
1.145	1.41211	173	1.73033	141	0.81609	33,4	1.2254	5,0
.146	.41384	173	.73175	141	.81642	33,3	.2249	5,0
.147	.41557	173	.73316	142	.81676	33,3	.2244	5,0
.148	.41731	173	.73458	142	.81709	33,2	.2239	5,0
.149	.41904	174	.73599	142	.81742	33,2	.2234	5,0
1.150	1.42078	174	1.73741	142	0.81775	33,1	1.2229	5,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.150	1.42078	174	1.73741	142	0.81775	33,1	1.2229	5,0
.151	.42252	174	.73884	142	.81809	33,1	.2224	4,9
.152	.42426	174	.74026	142	.81842	33,0	.2219	4,9
.153	.42600	174	.74168	143	.81875	33,0	.2214	4,9
.154	.42774	174	.74311	143	.81907	32,9	.2209	4,9
1.155	1.42948	174	1.74454	143	0.81940	32,9	1.2204	4,9
.156	.43123	175	.74597	143	.81973	32,8	.2199	4,9
.157	.43297	175	.74740	143	.82006	32,8	.2194	4,9
.158	.43472	175	.74884	143	.82039	32,7	.2189	4,9
.159	.43647	175	.75027	144	.82071	32,6	.2185	4,8
1.160	1.43822	175	1.75171	144	0.82104	32,6	1.2180	4,8
.161	.43998	175	.75315	144	.82137	32,5	.2175	4,8
.162	.44173	175	.75459	144	.82169	32,5	.2170	4,8
.163	.44349	176	.75603	144	.82202	32,4	.2165	4,8
.164	.44524	176	.75748	145	.82234	32,4	.2160	4,8
1.165	1.44700	176	1.75892	145	0.82266	32,3	1.2156	4,8
.166	.44876	176	.76037	145	.82299	32,3	.2151	4,8
.167	.45052	176	.76182	145	.82331	32,2	.2146	4,8
.168	.45228	176	.76327	145	.82363	32,2	.2141	4,7
.169	.45405	176	.76472	145	.82395	32,1	.2137	4,7
1.170	1.45581	177	1.76618	146	0.82427	32,1	1.2132	4,7
.171	.45758	177	.76764	146	.82459	32,0	.2127	4,7
.172	.45935	177	.76909	146	.82491	32,0	.2123	4,7
.173	.46112	177	.77056	146	.82523	31,9	.2118	4,7
.174	.46289	177	.77202	146	.82555	31,8	.2113	4,7
1.175	1.46466	177	1.77348	146	0.82587	31,8	1.2108	4,7
.176	.46644	177	.77495	147	.82619	31,7	.2104	4,7
.177	.46821	178	.77641	147	.82650	31,7	.2099	4,6
.178	.46999	178	.77788	147	.82682	31,6	.2095	4,6
.179	.47177	178	.77935	147	.82714	31,6	.2090	4,6
1.180	1.47355	178	1.78083	147	0.82745	31,5	1.2085	4,6
.181	.47533	178	.78230	148	.82777	31,5	.2081	4,6
.182	.47711	178	.78378	148	.82808	31,4	.2076	4,6
.183	.47890	179	.78525	148	.82840	31,4	.2072	4,6
.184	.48068	179	.78673	148	.82871	31,3	.2067	4,6
1.185	1.48247	179	1.78822	148	0.82902	31,3	1.2062	4,6
.186	.48426	179	.78970	148	.82933	31,2	.2058	4,5
.187	.48605	179	.79119	149	.82965	31,2	.2053	4,5
.188	.48784	179	.79267	149	.82996	31,1	.2049	4,5
.189	.48964	179	.79416	149	.83027	31,1	.2044	4,5
1.190	1.49143	180	1.79565	149	0.83058	31,0	1.2040	4,5
.191	.49323	180	.79714	149	.83089	31,0	.2035	4,5
.192	.49502	180	.79864	150	.83120	30,9	.2031	4,5
.193	.49682	180	.80013	150	.83151	30,9	.2026	4,5
.194	.49862	180	.80163	150	.83182	30,8	.2022	4,5
1.195	1.50043	180	1.80313	150	0.83212	30,8	1.2017	4,4
.196	.50223	180	.80463	150	.83243	30,7	.2013	4,4
.197	.50404	181	.80614	150	.83274	30,7	.2009	4,4
.198	.50584	181	.80764	151	.83304	30,6	.2004	4,4
.199	.50765	181	.80915	151	.83335	30,6	.2000	4,4
1.200	1.50946	181	1.81066	151	0.83365	30,5	1.1995	4,4
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
1.200	1.50946	181	1.81066	151	0.83365	30,5	1.1995	4,4
.201	.51127	181	.81217	151	.83396	30,5	.1991	4,4
.202	.51309	181	.81368	151	.83426	30,4	.1987	4,4
.203	.51490	182	.81519	151	.83457	30,3	.1982	4,4
.204	.51672	182	.81671	152	.83487	30,3	.1978	4,3
1.205	1.51853	182	1.81823	152	0.83517	30,2	1.1974	4,3
.206	.52035	182	.81974	152	.83548	30,2	.1969	4,3
.207	.52217	182	.82127	152	.83578	30,1	.1965	4,3
.208	.52400	182	.82279	152	.83608	30,1	.1961	4,3
.209	.52582	182	.82431	153	.83638	30,0	.1956	4,3
1.210	1.52764	183	1.82584	153	0.83668	30,0	1.1952	4,3
.211	.52947	183	.82737	153	.83698	29,9	.1948	4,3
.212	.53130	183	.82890	153	.83728	29,9	.1943	4,3
.213	.53313	183	.83043	153	.83758	29,8	.1939	4,3
.214	.53496	183	.83197	153	.83788	29,8	.1935	4,2
1.215	1.53679	183	1.83350	154	0.83817	29,7	1.1931	4,2
.216	.53863	184	.83504	154	.83847	29,7	.1926	4,2
.217	.54046	184	.83658	154	.83877	29,6	.1922	4,2
.218	.54230	184	.83812	154	.83906	29,6	.1918	4,2
.219	.54414	184	.83966	154	.83936	29,5	.1914	4,2
1.220	1.54598	184	1.84121	155	0.83965	29,5	1.1910	4,2
.221	.54782	184	.84276	155	.83995	29,4	.1905	4,2
.222	.54966	184	.84430	155	.84024	29,4	.1901	4,2
.223	.55151	185	.84586	155	.84054	29,3	.1897	4,2
.224	.55336	185	.84741	155	.84083	29,3	.1893	4,1
1.225	1.55520	185	1.84896	156	0.84112	29,3	1.1889	4,1
.226	.55705	185	.85052	156	.84142	29,2	.1885	4,1
.227	.55891	185	.85208	156	.84171	29,2	.1881	4,1
.228	.56076	185	.85364	156	.84200	29,1	.1877	4,1
.229	.56261	186	.85520	156	.84229	29,1	.1872	4,1
1.230	1.56447	186	1.85676	156	0.84258	29,0	1.1868	4,1
.231	.56633	186	.85833	157	.84287	29,0	.1864	4,1
.232	.56819	186	.85989	157	.84316	28,9	.1860	4,1
.233	.57005	186	.86146	157	.84345	28,9	.1856	4,1
.234	.57191	186	.86303	157	.84374	28,8	.1852	4,1
1.235	1.57377	186	1.86461	157	0.84402	28,8	1.1848	4,0
.236	.57564	187	.86618	158	.84431	28,7	.1844	4,0
.237	.57750	187	.86776	158	.84460	28,7	.1840	4,0
.238	.57937	187	.86934	158	.84488	28,6	.1836	4,0
.239	.58124	187	.87092	158	.84517	28,6	.1832	4,0
1.240	1.58311	187	1.87250	158	0.84546	28,5	1.1828	4,0
.241	.58499	187	.87408	158	.84574	28,5	.1824	4,0
.242	.58686	188	.87567	159	.84602	28,4	.1820	4,0
.243	.58874	188	.87726	159	.84631	28,4	.1816	4,0
.244	.59062	188	.87885	159	.84659	28,3	.1812	4,0
1.245	1.59250	188	1.88044	159	0.84688	28,3	1.1808	3,9
.246	.59438	188	.88203	159	.84716	28,2	.1804	3,9
.247	.59626	188	.88363	160	.84744	28,2	.1800	3,9
.248	.59815	189	.88522	160	.84772	28,1	.1796	3,9
.249	.60003	189	.88682	160	.84800	28,1	.1792	3,9
1.250	1.60192	189	1.88842	160	0.84828	28,0	1.1789	3,9
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.250	1.60192	189	1.88842	160	0.84828	28,0	1.1789	3,9
.251	.60381	189	.89003	160	.84856	28,0	.1785	3,9
.252	.60570	189	.89163	161	.84884	27,9	.1781	3,9
.253	.60759	189	.89324	161	.84912	27,9	.1777	3,9
.254	.60949	189	.89485	161	.84940	27,9	.1773	3,9
1.255	1.61138	190	1.89646	161	0.84968	27,8	1.1769	3,9
.256	.61328	190	.89807	161	.84996	27,8	.1765	3,8
.257	.61518	190	.89968	162	.85023	27,7	.1761	3,8
.258	.61708	190	.90130	162	.85051	27,7	.1758	3,8
.259	.61898	190	.90292	162	.85079	27,6	.1754	3,8
1.260	1.62088	190	1.90454	162	0.85106	27,6	1.1750	3,8
.261	.62279	191	.90616	162	.85134	27,5	.1746	3,8
.262	.62470	191	.90778	162	.85161	27,5	.1742	3,8
.263	.62661	191	.90941	163	.85189	27,4	.1739	3,8
.264	.62851	191	.91104	163	.85216	27,4	.1735	3,8
1.265	1.63043	191	1.91267	163	0.85244	27,3	1.1731	3,8
.266	.63234	191	.91430	163	.85271	27,3	.1727	3,8
.267	.63426	192	.91593	163	.85298	27,2	.1724	3,7
.268	.63617	192	.91757	164	.85325	27,2	.1720	3,7
.269	.63809	192	.91920	164	.85353	27,1	.1716	3,7
1.270	1.64001	192	1.92084	164	0.85380	27,1	1.1712	3,7
.271	.64193	192	.92248	164	.85407	27,1	.1709	3,7
.272	.64386	192	.92413	164	.85434	27,0	.1705	3,7
.273	.64578	193	.92577	165	.85461	27,0	.1701	3,7
.274	.64771	193	.92742	165	.85488	26,9	.1698	3,7
1.275	1.64964	193	1.92907	165	0.85515	26,9	1.1694	3,7
.276	.65157	193	.93072	165	.85542	26,8	.1690	3,7
.277	.65350	193	.93237	165	.85568	26,8	.1687	3,7
.278	.65543	193	.93402	166	.85595	26,7	.1683	3,6
.279	.65736	194	.93568	166	.85622	26,7	.1679	3,6
1.280	1.65930	194	1.93734	166	0.85648	26,6	1.1676	3,6
.281	.66124	194	.93900	166	.85675	26,6	.1672	3,6
.282	.66318	194	.94066	166	.85702	26,6	.1668	3,6
.283	.66512	194	.94233	167	.85728	26,5	.1665	3,6
.284	.66706	194	.94399	167	.85755	26,5	.1661	3,6
1.285	1.66901	195	1.94566	167	0.85781	26,4	1.1658	3,6
.286	.67096	195	.94733	167	.85808	26,4	.1654	3,6
.287	.67290	195	.94900	167	.85834	26,3	.1650	3,6
.288	.67485	195	.95068	167	.85860	26,3	.1647	3,6
.289	.67680	195	.95235	168	.85886	26,2	.1643	3,6
1.290	1.67876	195	1.95403	168	0.85913	26,2	1.1640	3,5
.291	.68071	196	.95571	168	.85939	26,1	.1636	3,5
.292	.68267	196	.95739	168	.85965	26,1	.1633	3,5
.293	.68463	196	.95907	168	.85991	26,1	.1629	3,5
.294	.68659	196	.96076	169	.86017	26,0	.1626	3,5
1.295	1.68855	196	1.96245	169	0.86043	26,0	1.1622	3,5
.296	.69051	196	.96414	169	.86069	25,9	.1619	3,5
.297	.69248	197	.96583	169	.86095	25,9	.1615	3,5
.298	.69444	197	.96752	169	.86121	25,8	.1612	3,5
.299	.69641	197	.96922	170	.86147	25,8	.1608	3,5
1.300	1.69838	197	1.97091	170	0.86172	25,7	1.1605	3,5
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀'	cosh u	ω F₀'	tanh u	ω F₀'	coth u	ω F₀'
1.300	1.69838	197	1.97091	170	0.86172	25,7	1.1605	3,5
.301	.70035	197	.97261	170	.86198	25,7	.1601	3,5
.302	.70233	197	.97431	170	.86224	25,7	.1598	3,5
.303	.70430	198	.97602	170	.86249	25,6	.1594	3,4
.304	.70628	198	.97772	171	.86275	25,6	.1591	3,4
1.305	1.70826	198	1.97943	171	0.86300	25,5	1.1587	3,4
.306	.71024	198	.98114	171	.86326	25,5	.1584	3,4
.307	.71222	198	.98285	171	.86351	25,4	.1581	3,4
.308	.71420	198	.98456	171	.86377	25,4	.1577	3,4
.309	.71619	199	.98628	172	.86402	25,3	.1574	3,4
1.310	1.71818	199	1.98800	172	0.86428	25,3	1.1570	3,4
.311	.72017	199	.98972	172	.86453	25,3	.1567	3,4
.312	.72216	199	.99144	172	.86478	25,2	.1564	3,4
.313	.72415	199	.99316	172	.86503	25,2	.1560	3,4
.314	.72614	199	.99489	173	.86528	25,1	.1557	3,4
1.315	1.72814	200	1.99661	173	0.86554	25,1	1.1554	3,3
.316	.73014	200	.99834	173	.86579	25,0	.1550	3,3
.317	.73214	200	2.00007	173	.86604	25,0	.1547	3,3
.318	.73414	200	.00181	173	.86629	25,0	.1544	3,3
.319	.73614	200	.00354	174	.86653	24,9	.1540	3,3
1.320	1.73814	201	2.00528	174	0.86678	24,9	1.1537	3,3
.321	.74015	201	.00702	174	.86703	24,8	.1534	3,3
.322	.74216	201	.00876	174	.86728	24,8	.1530	3,3
.323	.74417	201	.01050	174	.86753	24,7	.1527	3,3
.324	.74618	201	.01225	175	.86778	24,7	.1524	3,3
1.325	1.74819	201	2.01399	175	0.86802	24,7	1.1520	3,3
.326	.75021	202	.01574	175	.86827	24,6	.1517	3,3
.327	.75222	202	.01749	175	.86851	24,6	.1514	3,3
.328	.75424	202	.01925	175	.86876	24,5	.1511	3,2
.329	.75626	202	.02100	176	.86900	24,5	.1507	3,2
1.330	1.75828	202	2.02276	176	0.86925	24,4	1.1504	3,2
.331	.76031	202	.02452	176	.86949	24,4	.1501	3,2
.332	.76233	203	.02628	176	.86974	24,4	.1498	3,2
.333	.76436	203	.02804	176	.86998	24,3	.1495	3,2
.334	.76639	203	.02981	177	.87022	24,3	.1491	3,2
1.335	1.76842	203	2.03158	177	0.87047	24,2	1.1488	3,2
.336	.77045	203	.03335	177	.87071	24,2	.1485	3,2
.337	.77249	204	.03512	177	.87095	24,1	.1482	3,2
.338	.77452	204	.03689	177	.87119	24,1	.1479	3,2
.339	.77656	204	.03867	178	.87143	24,1	.1475	3,2
1.340	1.77860	204	2.04044	178	0.87167	24,0	1.1472	3,2
.341	.78064	204	.04222	178	.87191	24,0	.1469	3,2
.342	.78268	204	.04401	178	.87215	23,9	.1466	3,1
.343	.78473	205	.04579	178	.87239	23,9	.1463	3,1
.344	.78677	205	.04758	179	.87263	23,9	.1460	3,1
1.345	1.78882	205	2.04936	179	0.87287	23,8	1.1456	3,1
.346	.79087	205	.05115	179	.87311	23,8	.1453	3,1
.347	.79293	205	.05294	179	.87334	23,7	.1450	3,1
.348	.79498	205	.05474	179	.87358	23,7	.1447	3,1
.349	.79704	206	.05653	180	.87382	23,6	.1444	3,1
1.350	1.79909	206	2.05833	180	0.87405	23,6	1.1441	3,1
u	tan gd u	ω F₀'	sec gd u	ω F₀'	sin gd u	ω F₀'	csc gd u	ω F₀'

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
1.350	1.79909	206	2.05833	180	0.87405	23,6	1.1441	3,1
.351	.80115	206	.06013	180	.87429	23,6	.1438	3,1
.352	.80321	206	.06194	180	.87452	23,5	.1435	3,1
.353	.80528	206	.06374	181	.87476	23,5	.1432	3,1
.354	.80734	207	.06555	181	.87499	23,4	.1429	3,1
1.355	1.80941	207	2.06735	181	0.87523	23,4	1.1426	3,1
.356	.81148	207	.06916	181	.87546	23,4	.1423	3,0
.357	.81355	207	.07098	181	.87570	23,3	.1419	3,0
.358	.81562	207	.07279	182	.87593	23,3	.1416	3,0
.359	.81769	207	.07461	182	.87616	23,2	.1413	3,0
1.360	1.81977	208	2.07643	182	0.87639	23,2	1.1410	3,0
.361	.82184	208	.07825	182	.87662	23,2	.1407	3,0
.362	.82392	208	.08007	182	.87686	23,1	.1404	3,0
.363	.82600	208	.08190	183	.87709	23,1	.1401	3,0
.364	.82809	208	.08372	183	.87732	23,0	.1398	3,0
1.365	1.83017	209	2.08555	183	0.87755	23,0	1.1395	3,0
.366	.83226	209	.08738	183	.87778	23,0	.1392	3,0
.367	.83435	209	.08922	183	.87801	22,9	.1389	3,0
.368	.83644	209	.09105	184	.87824	22,9	.1386	3,0
.369	.83853	209	.09289	184	.87846	22,8	.1384	3,0
1.370	1.84062	209	2.09473	184	0.87869	22,8	1.1381	3,0
.371	.84272	210	.09657	184	.87892	22,7	.1378	2,9
.372	.84482	210	.09841	184	.87915	22,7	.1375	2,9
.373	.84691	210	.10026	185	.87937	22,7	.1372	2,9
.374	.84902	210	.10211	185	.87960	22,6	.1369	2,9
1.375	1.85112	210	2.10396	185	0.87983	22,6	1.1366	2,9
.376	.85322	211	.10581	185	.88005	22,6	.1363	2,9
.377	.85533	211	.10766	186	.88028	22,5	.1360	2,9
.378	.85744	211	.10952	186	.88050	22,5	.1357	2,9
.379	.85955	211	.11138	186	.88073	22,4	.1354	2,9
1.380	1.86166	211	2.11324	186	0.88095	22,4	1.1351	2,9
.381	.86378	212	.11510	185	.88117	22,4	.1348	2,9
.382	.86589	212	.11697	187	.88140	22,3	.1346	2,9
.383	.86801	212	.11883	187	.88162	22,3	.1343	2,9
.384	.87013	212	.12070	187	.88184	22,2	.1340	2,9
1.385	1.87225	212	2.12257	187	0.88207	22,2	1.1337	2,9
.386	.87437	212	.12445	187	.88229	22,2	.1334	2,8
.387	.87650	213	.12632	188	.88251	22,1	.1331	2,8
.388	.87863	213	.12820	188	.88273	22,1	.1328	2,8
.389	.88076	213	.13008	188	.88295	22,0	.1326	2,8
1.390	1.88289	213	2.13196	188	0.88317	22,0	1.1323	2,8
.391	.88502	213	.13385	189	.88339	22,0	.1320	2,8
.392	.88716	214	.13573	189	.88361	21,9	.1317	2,8
.393	.88929	214	.13762	189	.88383	21,9	.1314	2,8
.394	.89143	214	.13951	189	.88405	21,8	.1312	2,8
1.395	1.89357	214	2.14140	189	0.88427	21,8	1.1309	2,8
.396	.89571	214	.14330	190	.88448	21,8	.1306	2,8
.397	.89786	215	.14520	190	.88470	21,7	.1303	2,8
.398	.90000	215	.14709	190	.88492	21,7	.1300	2,8
.399	.90215	215	.14900	190	.88513	21,7	.1298	2,8
1.400	1.90430	215	2.15090	190	0.88535	21,6	1.1295	2,8
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.400	1.90430	215	2.15090	190	0.88535	21,6	1.1295	2,8
.401	.90645	215	.15280	191	.88557	21,6	.1292	2,8
.402	.90861	215	.15471	191	.88578	21,5	.1289	2,7
.403	.91076	216	.15662	191	.88600	21,5	.1287	2,7
.404	.91292	216	.15853	191	.88621	21,5	.1284	2,7
1.405	1.91508	216	2.16045	192	0.88643	21,4	1.1281	2,7
.406	.91724	216	.16236	192	.88664	21,4	.1279	2,7
.407	.91940	216	.16428	192	.88686	21,3	.1276	2,7
.408	.92157	217	.16620	192	.88707	21,3	.1273	2,7
.409	.92374	217	.16812	192	.88728	21,3	.1270	2,7
1.410	1.92591	217	2.17005	193	0.88749	21,2	1.1268	2,7
.411	.92808	217	.17198	193	.88771	21,2	.1265	2,7
.412	.93025	217	.17391	193	.88792	21,2	.1262	2,7
.413	.93242	218	.17584	193	.88813	21,1	.1260	2,7
.414	.93460	218	.17777	193	.88834	21,1	.1257	2,7
1.415	1.93678	218	2.17971	194	0.88855	21,0	1.1254	2,7
.416	.93896	218	.18164	194	.88876	21,0	.1252	2,7
.417	.94114	218	.18358	194	.88897	21,0	.1249	2,7
.418	.94333	219	.18553	194	.88918	20,9	.1246	2,6
.419	.94551	219	.18747	195	.88939	20,9	.1244	2,6
1.420	1.94770	219	2.18942	195	0.88960	20,9	1.1241	2,6
.421	.94989	219	.19137	195	.88981	20,8	.1238	2,6
.422	.95209	219	.19332	195	.89002	20,8	.1236	2,6
.423	.95428	220	.19527	195	.89022	20,8	.1233	2,6
.424	.95648	220	.19723	196	.89043	20,7	.1231	2,6
1.425	1.95867	220	2.19918	196	0.89064	20,7	1.1228	2,6
.426	.96087	220	.20114	196	.89084	20,6	.1225	2,6
.427	.96308	220	.20310	196	.89105	20,6	.1223	2,6
.428	.96528	221	.20507	197	.89126	20,6	.1220	2,6
.429	.96749	221	.20704	197	.89146	20,5	.1218	2,6
1.430	1.96970	221	2.20900	197	0.89167	20,5	1.1215	2,6
.431	.97191	221	.21097	197	.89187	20,5	.1212	2,6
.432	.97412	221	.21295	197	.89208	20,4	.1210	2,6
.433	.97633	221	.21492	198	.89228	20,4	.1207	2,6
.434	.97855	222	.21690	198	.89248	20,3	.1205	2,6
1.435	1.98076	222	2.21888	198	0.89269	20,3	1.1202	2,5
.436	.98298	222	.22086	198	.89289	20,3	.1200	2,5
.437	.98521	222	.22285	199	.89309	20,2	.1197	2,5
.438	.98743	222	.22483	199	.89329	20,2	.1195	2,5
.439	.98966	223	.22682	199	.89350	20,2	.1192	2,5
1.440	1.99188	223	2.22881	199	0.89370	20,1	1.1189	2,5
.441	.99411	223	.23080	199	.89390	20,1	.1187	2,5
.442	.99635	223	.23280	200	.89410	20,1	.1184	2,5
.443	.99858	223	.23480	200	.89430	20,0	.1182	2,5
.444	2.00082	224	.23680	200	.89450	20,0	.1179	2,5
1.445	2.00305	224	2.23880	200	0.89470	20,0	1.1177	2,5
.446	.00529	224	.24080	201	.89490	19,9	.1174	2,5
.447	.00753	224	.24281	201	.89510	19,9	.1172	2,5
.448	.00978	224	.24482	201	.89530	19,8	.1169	2,5
.449	.01202	225	.24683	201	.89550	19,8	.1167	2,5
1.450	2.01427	225	2.24884	201	0.89569	19,8	1.1165	2,5
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.450	2.01427	225	2.24884	201	0.89569	19,8	1.1165	2,5
.451	.01652	225	.25086	202	.89589	19,7	.1162	2,5
.452	.01877	225	.25288	202	.89609	19,7	.1160	2,5
.453	.02103	225	.25490	202	.89628	19,7	.1157	2,4
.454	.02328	226	.25692	202	.89648	19,6	.1155	2,4
1.455	2.02554	226	2.25894	203	0.89668	19,6	1.1152	2,4
.456	.02780	226	.26097	203	.89687	19,6	.1150	2,4
.457	.03006	226	.26300	203	.89707	19,5	.1147	2,4
.458	.03233	227	.26503	203	.89726	19,5	.1145	2,4
.459	.03459	227	.26706	203	.89746	19,5	.1143	2,4
1.460	2.03686	227	2.26910	204	0.89765	19,4	1.1140	2,4
.461	.03913	227	.27114	204	.89785	19,4	.1138	2,4
.462	.04140	227	.27318	204	.89804	19,4	.1135	2,4
.463	.04368	228	.27522	204	.89823	19,3	.1133	2,4
.464	.04595	228	.27726	205	.89843	19,3	.1131	2,4
1.465	2.04823	228	2.27931	205	0.89862	19,2	1.1128	2,4
.466	.05051	228	.28136	205	.89881	19,2	.1126	2,4
.467	.05280	228	.28341	205	.89900	19,2	.1123	2,4
.468	.05508	229	.28547	206	.89920	19,1	.1121	2,4
.469	.05737	229	.28752	206	.89939	19,1	.1119	2,4
1.470	2.05965	229	2.28958	206	0.89958	19,1	1.1116	2,4
.471	.06195	229	.29164	206	.89977	19,0	.1114	2,4
.472	.06424	229	.29370	206	.89996	19,0	.1112	2,3
.473	.06653	230	.29577	207	.90015	19,0	.1109	2,3
.474	.06883	230	.29784	207	.90034	18,9	.1107	2,3
1.475	2.07113	230	2.29991	207	0.90053	18,9	1.1105	2,3
.476	.07343	230	.30198	207	.90072	18,9	.1102	2,3
.477	.07573	230	.30405	208	.90090	18,8	.1100	2,3
.478	.07804	231	.30613	208	.90109	18,8	.1098	2,3
.479	.08034	231	.30821	208	.90128	18,8	.1095	2,3
1.480	2.08265	231	2.31029	208	0.90147	18,7	1.1093	2,3
.481	.08497	231	.31238	208	.90166	18,7	.1091	2,3
.482	.08728	231	.31446	209	.90184	18,7	.1088	2,3
.483	.08959	232	.31655	209	.90203	18,6	.1086	2,3
.484	.09191	232	.31864	209	.90221	18,6	.1084	2,3
1.485	2.09423	232	2.32073	209	0.90240	18,6	1.1082	2,3
.486	.09655	232	.32283	210	.90259	18,5	.1079	2,3
.487	.09888	232	.32493	210	.90277	18,5	.1077	2,3
.488	.10120	233	.32703	210	.90296	18,5	.1075	2,3
.489	.10353	233	.32913	210	.90314	18,4	.1072	2,3
1.490	2.10586	233	2.33123	211	0.90332	18,4	1.1070	2,3
.491	.10819	233	.33334	211	.90351	18,4	.1068	2,2
.492	.11053	234	.33545	211	.90369	18,3	.1066	2,2
.493	.11286	234	.33756	211	.90388	18,3	.1063	2,2
.494	.11520	234	.33968	212	.90406	18,3	.1061	2,2
1.495	2.11754	234	2.34179	212	0.90424	18,2	1.1059	2,2
.496	.11989	234	.34391	212	.90442	18,2	.1057	2,2
.497	.12223	235	.34603	212	.90460	18,2	.1055	2,2
.498	.12458	235	.34816	212	.90479	18,1	.1052	2,2
.499	.12693	235	.35028	213	.90497	18,1	.1050	2,2
1.500	2.12928	235	2.35241	213	0.90515	18,1	1.1048	2,2
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
1.500	2.12928	235	2.35241	213	0.90515	18,1	1.1048	2,2
.501	.13163	235	.35454	213	.90533	18,0	.1046	2,2
.502	.13399	236	.35667	213	.90551	18,0	.1044	2,2
.503	.13635	236	.35881	214	.90569	18,0	.1041	2,2
.504	.13871	236	.36095	214	.90587	17,9	.1039	2,2
1.505	2.14107	236	2.36309	214	0.90605	17,9	1.1037	2,2
.506	.14343	237	.36523	214	.90623	17,9	.1035	2,2
.507	.14580	237	.36737	215	.90641	17,8	.1033	2,2
.508	.14817	237	.36952	215	.90658	17,8	.1030	2,2
.509	.15054	237	.37167	215	.90676	17,8	.1028	2,2
1.510	2.15291	237	2.37382	215	0.90694	17,7	1.1026	2,2
.511	.15529	238	.37597	216	.90712	17,7	.1024	2,2
.512	.15766	238	.37813	216	.90729	17,7	.1022	2,1
.513	.16004	238	.38029	216	.90747	17,6	.1020	2,1
.514	.16242	238	.38245	216	.90765	17,6	.1018	2,1
1.515	2.16481	238	2.38461	216	0.90782	17,6	1.1015	2,1
.516	.16719	239	.38678	217	.90800	17,6	.1013	2,1
.517	.16958	239	.38895	217	.90817	17,5	.1011	2,1
.518	.17197	239	.39112	217	.90835	17,5	.1009	2,1
.519	.17436	239	.39329	217	.90852	17,5	.1007	2,1
1.520	2.17676	240	2.39547	218	0.90870	17,4	1.1005	2,1
.521	.17915	240	.39765	218	.90887	17,4	.1003	2,1
.522	.18155	240	.39983	218	.90905	17,4	.1001	2,1
.523	.18395	240	.40201	218	.90922	17,3	.0998	2,1
.524	.18636	240	.40419	219	.90939	17,3	.0996	2,1
1.525	2.18876	241	2.40638	219	0.90957	17,3	1.0994	2,1
.526	.19117	241	.40857	219	.90974	17,2	.0992	2,1
.527	.19358	241	.41076	219	.90991	17,2	.0990	2,1
.528	.19599	241	.41296	220	.91008	17,2	.0988	2,1
.529	.19840	242	.41516	220	.91025	17,1	.0986	2,1
1.530	2.20082	242	2.41736	220	0.91042	17,1	1.0984	2,1
.531	.20324	242	.41956	220	.91060	17,1	.0982	2,1
.532	.20566	242	.42176	221	.91077	17,1	.0980	2,1
.533	.20808	242	.42397	221	.91094	17,0	.0978	2,1
.534	.21051	243	.42618	221	.91111	17,0	.0976	2,0
1.535	2.21293	243	2.42839	221	0.91128	17,0	1.0974	2,0
.536	.21536	243	.43060	222	.91145	16,9	.0972	2,0
.537	.21780	243	.43282	222	.91161	16,9	.0970	2,0
.538	.22023	244	.43504	222	.91178	16,9	.0968	2,0
.539	.22267	244	.43726	222	.91195	16,8	.0965	2,0
1.540	2.22510	244	2.43949	223	0.91212	16,8	1.0963	2,0
.541	.22755	244	.44171	223	.91229	16,8	.0961	2,0
.542	.22999	244	.44394	223	.91246	16,7	.0959	2,0
.543	.23243	245	.44617	223	.91262	16,7	.0957	2,0
.544	.23488	245	.44841	223	.91279	16,7	.0955	2,0
1.545	2.23733	245	2.45064	224	0.91296	16,7	1.0953	2,0
.546	.23978	245	.45288	224	.91312	16,6	.0951	2,0
.547	.24224	246	.45512	224	.91329	16,6	.0949	2,0
.548	.24469	246	.45736	224	.91345	16,6	.0947	2,0
.549	.24715	246	.45961	225	.91362	16,5	.0945	2,0
1.550	2.24961	246	2.46186	225	0.91379	16,5	1.0943	2,0
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.550	2.24961	246	2.46186	225	0.91379	16,5	1.0943	2,0
.551	.25207	246	.46411	225	.91395	16,5	.0942	2,0
.552	.25454	247	.46636	225	.91411	16,4	.0940	2,0
.553	.25701	247	.46862	226	.91428	16,4	.0938	2,0
.554	.25948	247	.47088	226	.91444	16,4	.0936	2,0
1.555	2.26195	247	2.47314	226	0.91461	16,3	1.0934	2,0
.556	.26442	248	.47540	226	.91477	16,3	.0932	2,0
.557	.26690	248	.47767	227	.91493	16,3	.0930	1,9
.558	.26938	248	.47993	227	.91510	16,3	.0928	1,9
.559	.27186	248	.48221	227	.91526	16,2	.0926	1,9
1.560	2.27434	248	2.48448	227	0.91542	16,2	1.0924	1,9
.561	.27683	249	.48675	228	.91558	16,2	.0922	1,9
.562	.27932	249	.48903	228	.91574	16,1	.0920	1,9
.563	.28181	249	.49131	228	.91591	16,1	.0918	1,9
.564	.28430	249	.49360	228	.91607	16,1	.0916	1,9
1.565	2.28679	250	2.49588	229	0.91623	16,1	1.0914	1,9
.566	.28929	250	.49817	229	.91639	16,0	.0912	1,9
.567	.29179	250	.50046	229	.91655	16,0	.0911	1,9
.568	.29429	250	.50275	229	.91671	16,0	.0909	1,9
.569	.29680	251	.50505	230	.91687	15,9	.0907	1,9
1.570	2.29930	251	2.50735	230	0.91703	15,9	1.0905	1,9
.571	.30181	251	.50965	230	.91718	15,9	.0903	1,9
.572	.30432	251	.51195	230	.91734	15,8	.0901	1,9
.573	.30683	251	.51426	231	.91750	15,8	.0899	1,9
.574	.30935	252	.51656	231	.91766	15,8	.0897	1,9
1.575	2.31187	252	2.51887	231	0.91782	15,8	1.0895	1,9
.576	.31439	252	.52119	231	.91797	15,7	.0894	1,9
.577	.31691	252	.52350	232	.91813	15,7	.0892	1,9
.578	.31943	253	.52582	232	.91829	15,7	.0890	1,9
.579	.32196	253	.52814	232	.91845	15,6	.0888	1,9
1.580	2.32449	253	2.53047	232	0.91860	15,6	1.0886	1,9
.581	.32702	253	.53279	233	.91876	15,6	.0884	1,8
.582	.32956	254	.53512	233	.91891	15,6	.0882	1,8
.583	.33209	254	.53745	233	.91907	15,5	.0881	1,8
.584	.33463	254	.53978	233	.91922	15,5	.0879	1,8
1.585	2.33717	254	2.54212	234	0.91938	15,5	1.0877	1,8
.586	.33972	254	.54446	234	.91953	15,4	.0875	1,8
.587	.34226	255	.54680	234	.91969	15,4	.0873	1,8
.588	.34481	255	.54914	234	.91984	15,4	.0871	1,8
.589	.34736	255	.55149	235	.92000	15,4	.0870	1,8
1.590	2.34991	255	2.55384	235	0.92015	15,3	1.0868	1,8
.591	.35247	256	.55619	235	.92030	15,3	.0866	1,8
.592	.35502	256	.55854	236	.92046	15,3	.0864	1,8
.593	.35758	256	.56090	236	.92061	15,2	.0862	1,8
.594	.36015	256	.56326	236	.92076	15,2	.0861	1,8
1.595	2.36271	257	2.56562	236	0.92091	15,2	1.0859	1,8
.596	.36528	257	.56798	237	.92106	15,2	.0857	1,8
.597	.36785	257	.57035	237	.92122	15,1	.0855	1,8
.598	.37042	257	.57272	237	.92137	15,1	.0853	1,8
.599	.37299	258	.57509	237	.92152	15,1	.0852	1,8
1.600	2.37557	258	2.57746	238	0.92167	15,1	1.0850	1,8
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.600	2.37557	258	2.57746	238	0.92167	15,1	1.0850	1,8
.601	.37815	258	.57984	238	.92182	15,0	.0848	1,8
.602	.38073	258	.58222	238	.92197	15,0	.0846	1,8
.603	.38331	258	.58460	238	.92212	15,0	.0845	1,8
.604	.38590	259	.58699	239	.92227	14,9	.0843	1,8
1.605	2.38849	259	2.58937	239	0.92242	14,9	1.0841	1,8
.606	.39108	259	.59176	239	.92257	14,9	.0839	1,7
.607	.39367	259	.59416	239	.92272	14,9	.0838	1,7
.608	.39626	260	.59655	240	.92286	14,8	.0836	1,7
.609	.39886	260	.59895	240	.92301	14,8	.0834	1,7
1.610	2.40146	260	2.60135	240	0.92316	14,8	1.0832	1,7
.611	.40406	260	.60375	240	.92331	14,8	.0831	1,7
.612	.40667	261	.60616	241	.92346	14,7	.0829	1,7
.613	.40928	261	.60857	241	.92360	14,7	.0827	1,7
.614	.41189	261	.61098	241	.92375	14,7	.0825	1,7
1.615	2.41450	261	2.61339	241	0.92390	14,6	1.0824	1,7
.616	.41711	262	.61581	242	.92404	14,6	.0822	1,7
.617	.41973	262	.61822	242	.92419	14,6	.0820	1,7
.618	.42235	262	.62064	242	.92433	14,6	.0819	1,7
.619	.42497	262	.62307	242	.92448	14,5	.0817	1,7
1.620	2.42760	263	2.62549	243	0.92462	14,5	1.0815	1,7
.621	.43022	263	.62792	243	.92477	14,5	.0814	1,7
.622	.43285	263	.63035	243	.92491	14,5	.0812	1,7
.623	.43548	263	.63279	244	.92506	14,4	.0810	1,7
.624	.43812	264	.63522	244	.92520	14,4	.0808	1,7
1.625	2.44075	264	2.63767	244	0.92535	14,4	1.0807	1,7
.626	.44339	264	.64011	244	.92549	14,3	.0805	1,7
.627	.44603	264	.64255	245	.92563	14,3	.0803	1,7
.628	.44868	264	.64500	245	.92578	14,3	.0802	1,7
.629	.45132	265	.64745	245	.92592	14,3	.0800	1,7
1.630	2.45397	265	2.64990	245	0.92606	14,2	1.0798	1,7
.631	.45662	265	.65236	246	.92620	14,2	.0797	1,7
.632	.45928	265	.65482	246	.92635	14,2	.0795	1,7
.633	.46193	266	.65728	246	.92649	14,2	.0793	1,6
.634	.46459	266	.65974	246	.92663	14,1	.0792	1,6
1.635	2.46725	266	2.66221	247	0.92677	14,1	1.0790	1,6
.636	.46992	266	.66467	247	.92691	14,1	.0789	1,6
.637	.47258	267	.66715	247	.92705	14,1	.0787	1,6
.638	.47525	267	.66962	248	.92719	14,0	.0785	1,6
.639	.47792	267	.67210	248	.92733	14,0	.0784	1,6
1.640	2.48059	267	2.67457	248	0.92747	14,0	1.0782	1,6
.641	.48327	268	.67706	248	.92761	14,0	.0780	1,6
.642	.48595	268	.67954	249	.92775	13,9	.0779	1,6
.643	.48863	268	.68203	249	.92789	13,9	.0777	1,6
.644	.49131	268	.68452	249	.92803	13,9	.0776	1,6
1.645	2.49400	269	2.68701	249	0.92817	13,9	1.0774	1,6
.646	.49669	269	.68951	250	.92831	13,8	.0772	1,6
.647	.49938	269	.69200	250	.92844	13,8	.0771	1,6
.648	.50207	269	.69451	250	.92858	13,8	.0769	1,6
.649	.50477	270	.69701	250	.92872	13,7	.0768	1,6
1.650	2.50746	270	2.69951	251	0.92886	13,7	1.0766	1,6
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.650	2.50746	270	2.69951	251	0.92886	13,7	1.0766	1,6
.651	.51017	270	.70202	251	.92899	13,7	.0764	1,6
.652	.51287	270	.70454	251	.92913	13,7	.0763	1,6
.653	.51557	271	.70705	252	.92927	13,6	.0761	1,6
.654	.51828	271	.70957	252	.92940	13,6	.0760	1,6
1.655	2.52099	271	2.71209	252	0.92954	13,6	1.0758	1,6
.656	.52371	271	.71461	252	.92968	13,6	.0756	1,6
.657	.52642	272	.71713	253	.92981	13,5	.0755	1,6
.658	.52914	272	.71966	253	.92995	13,5	.0753	1,6
.659	.53186	272	.72219	253	.93008	13,5	.0752	1,6
1.660	2.53459	272	2.72472	253	0.93022	13,5	1.0750	1,6
.661	.53731	273	.72726	254	.93035	13,4	.0749	1,6
.662	.54004	273	.72980	254	.93049	13,4	.0747	1,5
.663	.54277	273	.73234	254	.93062	13,4	.0746	1,5
.664	.54551	273	.73489	255	.93075	13,4	.0744	1,5
1.665	2.54824	274	2.73743	255	0.93089	13,3	1.0742	1,5
.666	.55098	274	.73998	255	.93102	13,3	.0741	1,5
.667	.55372	274	.74253	255	.93115	13,3	.0739	1,5
.668	.55647	275	.74509	256	.93129	13,3	.0738	1,5
.669	.55921	275	.74765	256	.93142	13,2	.0736	1,5
1.670	2.56196	275	2.75021	256	0.93155	13,2	1.0735	1,5
.671	.56471	275	.75277	256	.93168	13,2	.0733	1,5
.672	.56747	276	.75534	257	.93182	13,2	.0732	1,5
.673	.57022	276	.75791	257	.93195	13,1	.0730	1,5
.674	.57298	276	.76048	257	.93208	13,1	.0729	1,5
1.675	2.57574	276	2.76305	258	0.93221	13,1	1.0727	1,5
.676	.57851	277	.76563	258	.93234	13,1	.0726	1,5
.677	.58127	277	.76821	258	.93247	13,0	.0724	1,5
.678	.58404	277	.77079	258	.93260	13,0	.0723	1,5
.679	.58682	277	.77338	259	.93273	13,0	.0721	1,5
1.680	2.58959	278	2.77596	259	0.93286	13,0	1.0720	1,5
.681	.59237	278	.77856	259	.93299	13,0	.0718	1,5
.682	.59515	278	.78115	260	.93312	12,9	.0717	1,5
.683	.59793	278	.78375	260	.93325	12,9	.0715	1,5
.684	.60072	279	.78635	260	.93338	12,9	.0714	1,5
1.685	2.60350	279	2.78895	260	0.93351	12,9	1.0712	1,5
.686	.60629	279	.79155	261	.93364	12,8	.0711	1,5
.687	.60909	279	.79416	261	.93376	12,8	.0709	1,5
.688	.61188	280	.79677	261	.93389	12,8	.0708	1,5
.689	.61468	280	.79938	261	.93402	12,8	.0706	1,5
1.690	2.61748	280	2.80200	262	0.93415	12,7	1.0705	1,5
.691	.62028	280	.80462	262	.93427	12,7	.0703	1,5
.692	.62309	281	.80724	262	.93440	12,7	.0702	1,5
.693	.62590	281	.80987	263	.93453	12,7	.0701	1,5
.694	.62871	281	.81249	263	.93465	12,6	.0699	1,4
1.695	2.63152	282	2.81512	263	0.93478	12,6	1.0698	1,4
.696	.63434	282	.81776	263	.93491	12,6	.0696	1,4
.697	.63716	282	.82039	264	.93503	12,6	.0695	1,4
.698	.63998	282	.82303	264	.93516	12,5	.0693	1,4
.699	.64280	283	.82567	264	.93528	12,5	.0692	1,4
1.700	2.64563	283	2.82832	265	0.93541	12,5	1.0691	1,4
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
1.700	2.64563	283	2.82832	265	0.93541	12,5	1.0691	1,4
.701	.64846	283	.83096	265	.93553	12,5	.0689	1,4
.702	.65129	283	.83361	265	.93566	12,5	.0688	1,4
.703	.65413	284	.83627	265	.93578	12,4	.0686	1,4
.704	.65697	384	.83892	266	.93591	12,4	.0685	1,4
1.705	2.65981	284	2.84158	266	0.93603	12,4	1.0683	1,4
.706	.66265	284	.84424	266	.93615	12,4	.0682	1,4
.707	.66550	285	.84690	267	.93628	12,3	.0681	1,4
.708	.66834	285	.84957	267	.93640	12,3	.0679	1,4
.709	.67119	285	.85224	267	.93652	12,3	.0678	1,4
1.710	2.67405	285	2.85491	267	0.93665	12,3	1.0676	1,4
.711	.67690	286	.85759	268	.93677	12,2	.0675	1,4
.712	.67976	286	.86027	268	.93689	12,2	.0674	1,4
.713	.68262	286	.86295	268	.93701	12,2	.0672	1,4
.714	.68549	287	.86563	269	.93714	12,2	.0671	1,4
1.715	2.68836	287	2.86832	269	0.93726	12,2	1.0669	1,4
.716	.69123	287	.87101	269	.93738	12,1	.0668	1,4
.717	.69410	287	.87370	269	.93750	12,1	.0667	1,4
.718	.69697	288	.87640	270	.93762	12,1	.0665	1,4
.719	.69985	288	.87910	270	.93774	12,1	.0664	1,4
1.720	2.70273	288	2.88180	270	0.93786	12,0	1.0663	1,4
.721	.70561	288	.88450	271	.93798	12,0	.0661	1,4
.722	.70850	289	.88721	271	.93810	12,0	.0660	1,4
.723	.71139	289	.88992	271	.93822	12,0	.0658	1,4
.724	.71428	289	.89263	271	.93834	12,0	.0657	1,4
1.725	2.71717	290	2.89535	272	0.93846	11,9	1.0656	1,4
.726	.72007	290	.89807	272	.93858	11,9	.0654	1,4
.727	.72297	290	.90079	272	.93870	11,9	.0653	1,3
.728	.72587	290	.90351	273	.93882	11,9	.0652	1,3
.729	.72878	291	.90624	273	.93894	11,8	.0650	1,3
1.730	2.73168	291	2.90897	273	0.93906	11,8	1.0649	1,3
.731	.73460	291	.91170	273	.93917	11,8	.0648	1,3
.732	.73751	291	.91444	274	.93929	11,8	.0646	1,3
.733	.74042	292	.91718	274	.93941	11,8	.0645	1,3
.734	.74334	292	.91992	274	.93953	11,7	.0644	1,3
1.735	2.74626	292	2.92266	275	0.93964	11,7	1.0642	1,3
.736	.74919	293	.92541	275	.93976	11,7	.0641	1,3
.737	.75211	293	.92816	275	.93988	11,7	.0640	1,3
.738	.75504	293	.93092	276	.93999	11,6	.0638	1,3
.739	.75798	293	.93367	276	.94011	11,6	.0637	1,3
1.740	2.76091	294	2.93643	276	0.94023	11,6	1.0636	1,3
.741	.76385	294	.93919	276	.94034	11,6	.0634	1,3
.742	.76679	294	.94196	277	.94046	11,6	.0633	1,3
.743	.76973	294	.94473	277	.94057	11,5	.0632	1,3
.744	.77268	295	.94750	277	.94069	11,5	.0631	1,3
1.745	2.77563	295	2.95027	278	0.94080	11,5	1.0629	1,3
.746	.77858	295	.95305	278	.94092	11,5	.0628	1,3
.747	.78153	296	.95583	278	.94103	11,4	.0627	1,3
.748	.78449	296	.95861	278	.94115	11,4	.0625	1,3
.749	.78745	296	.96140	279	.94126	11,4	.0624	1,3
1.750	2.79041	296	2.96419	279	0.94138	11,4	1.0623	1,3
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
1.750	2.79041	296	2.96419	279	0.94138	11,4	1.0623	1,3
.751	.79338	297	.96698	279	.94149	11,4	.0621	1,3
.752	.79635	297	.96978	280	.94160	11,3	.0620	1,3
.753	.79932	297	.97257	280	.94172	11,3	.0619	1,3
.754	.80229	298	.97537	280	.94183	11,3	.0618	1,3
1.755	2.80527	298	2.97818	281	0.94194	11,3	1.0616	1,3
.756	.80825	298	.98098	281	.94205	11,3	.0615	1,3
.757	.81123	298	.98379	281	.94217	11,2	.0614	1,3
.758	.81422	299	.98661	281	.94228	11,2	.0613	1,3
.759	.81721	299	.98942	282	.94239	11,2	.0611	1,3
1.760	2.82020	299	2.99224	282	0.94250	11,2	1.0610	1,3
.761	.82319	300	.99506	282	.94261	11,1	.0609	1,3
.762	.82619	300	.99789	283	.94273	11,1	.0608	1,3
.763	.82919	300	3.00072	283	.94284	11,1	.0606	1,2
.764	.83219	300	.00355	283	.94295	11,1	.0605	1,2
1.765	2.83519	301	3.00638	284	0.94306	11,1	1.0604	1,2
.766	.83820	301	.00922	284	.94317	11,0	.0603	1,2
.767	.84121	301	.01206	284	.94328	11,0	.0601	1,2
.768	.84422	301	.01490	284	.94339	11,0	.0600	1,2
.769	.84724	302	.01774	285	.94350	11,0	.0599	1,2
1.770	2.85026	302	3.02059	285	0.94361	11,0	1.0598	1,2
.771	.85328	302	.02344	285	.94372	10,9	.0596	1,2
.772	.85631	303	.02630	286	.94383	10,9	.0595	1,2
.773	.85933	303	.02916	286	.94394	10,9	.0594	1,2
.774	.86237	303	.03202	286	.94405	10,9	.0593	1,2
1.775	2.86540	303	3.03488	287	0.94416	10,9	1.0591	1,2
.776	.86844	304	.03775	287	.94426	10,8	.0590	1,2
.777	.87147	304	.04062	287	.94437	10,8	.0589	1,2
.778	.87452	304	.04349	287	.94448	10,8	.0588	1,2
.779	.87756	305	.04637	288	.94459	10,8	.0587	1,2
1.780	2.88061	305	3.04925	288	0.94470	10,8	1.0585	1,2
.781	.88366	305	.05213	288	.94480	10,7	.0584	1,2
.782	.88671	306	.05501	289	.94491	10,7	.0583	1,2
.783	.88977	306	.05790	289	.94502	10,7	.0582	1,2
.784	.89283	306	.06079	289	.94513	10,7	.0581	1,2
1.785	2.89589	306	3.06369	290	0.94523	10,7	1.0579	1,2
.786	.89896	307	.06659	290	.94534	10,6	.0578	1,2
.787	.90202	307	.06949	290	.94544	10,6	.0577	1,2
.788	.90510	307	.07239	291	.94555	10,6	.0576	1,2
.789	.90817	308	.07530	291	.94565	10,6	.0575	1,2
1.790	2.91125	308	3.07821	291	0.94576	10,6	1.0574	1,2
.791	.91433	308	.08112	291	.94587	10,5	.0572	1,2
.792	.91741	308	.08403	292	.94597	10,5	.0571	1,2
.793	.92049	309	.08695	292	.94608	10,5	.0570	1,2
.794	.92358	309	.08988	292	.94618	10,5	.0569	1,2
1.795	2.92667	309	3.09280	293	0.94629	10,5	1.0568	1,2
.796	.92977	310	.09573	293	.94639	10,4	.0566	1,2
.797	.93287	310	.09866	293	.94649	10,4	.0565	1,2
.798	.93597	310	.10160	294	.94660	10,4	.0564	1,2
.799	.93907	310	.10453	294	.94670	10,4	.0563	1,2
1.800	2.94217	311	3.10747	294	0.94681	10,4	1.0562	1,2
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.800	2.94217	311	3.10747	294	0.94681	10,4	1.0562	1,2
.801	.94528	311	.11042	295	.94691	10,3	.0561	1,2
.802	.94840	311	.11336	295	.94701	10,3	.0560	1,2
.803	.95151	312	.11631	295	.94712	10,3	.0558	1,1
.804	.95463	312	.11927	295	.94722	10,3	.0557	1,1
1.805	2.95775	312	3.12222	296	0.94732	10,3	1.0556	1,1
.806	.96087	313	.12518	296	.94742	10,2	.0555	1,1
.807	.96400	313	.12814	296	.94753	10,2	.0554	1,1
.808	.96713	313	.13111	297	.94763	10,2	.0553	1,1
.809	.97026	313	.13408	297	.94773	10,2	.0552	1,1
1.810	2.97340	314	3.13705	297	0.94783	10,2	1.0550	1,1
.811	.97654	314	.14003	298	.94793	10,1	.0549	1,1
.812	.97968	314	.14300	298	.94803	10,1	.0548	1,1
.813	.98282	315	.14599	298	.94814	10,1	.0547	1,1
.814	.98597	315	.14897	299	.94824	10,1	.0546	1,1
1.815	2.98912	315	3.15196	299	0.94834	10,1	1.0545	1,1
.816	.99227	315	.15495	299	.94844	10,0	.0544	1,1
.817	.99543	316	.15794	300	.94854	10,0	.0543	1,1
.818	.99859	316	.16094	300	.94864	10,0	.0541	1,1
.819	3.00175	316	.16394	300	.94874	10,0	.0540	1,1
1.820	3.00492	317	3.16694	300	0.94884	10,0	1.0539	1,1
.821	.00808	317	.16995	301	.94894	10,0	.0538	1,1
.822	.01126	317	.17296	301	.94904	9,9	.0537	1,1
.823	.01443	318	.17597	301	.94914	9,9	.0536	1,1
.824	.01761	318	.17899	302	.94924	9,9	.0535	1,1
1.825	3.02079	318	3.18201	302	0.94933	9,9	1.0534	1,1
.826	.02397	319	.18503	302	.94943	9,9	.0533	1,1
.827	.02716	319	.18805	303	.94953	9,8	.0532	1,1
.828	.03035	319	.19108	303	.94963	9,8	.0530	1,1
.829	.03354	319	.19411	303	.94973	9,8	.0529	1,1
1.830	3.03674	320	3.19715	304	0.94983	9,8	1.0528	1,1
.831	.03994	320	.20019	304	.94992	9,8	.0527	1,1
.832	.04314	320	.20323	304	.95002	9,7	.0526	1,1
.833	.04634	321	.20627	305	.95012	9,7	.0525	1,1
.834	.04955	321	.20932	305	.95022	9,7	.0524	1,1
1.835	3.05276	321	3.21237	305	0.95031	9,7	1.0523	1,1
.836	.05597	322	.21543	306	.95041	9,7	.0522	1,1
.837	.05919	322	.21849	306	.95051	9,7	.0521	1,1
.838	.06241	322	.22155	306	.95060	9,6	.0520	1,1
.839	.06563	322	.22461	307	.95070	9,6	.0519	1,1
1.840	3.06886	323	3.22768	307	0.95080	9,6	1.0518	1,1
.841	.07209	323	.23075	307	.95089	9,6	.0516	1,1
.842	.07532	323	.23382	308	.95099	9,6	.0515	1,1
.843	.07856	324	.23690	308	.95108	9,5	.0514	1,1
.844	.08180	324	.23998	308	.95118	9,5	.0513	1,1
1.845	3.08504	324	3.24306	309	0.95127	9,5	1.0512	1,1
.846	.08828	325	.24615	309	.95137	9,5	.0511	1,0
.847	.09153	325	.24924	309	.95146	9,5	.0510	1,0
.848	.09478	325	.25233	309	.95156	9,5	.0509	1,0
.849	.09803	326	.25543	310	.95165	9,4	.0508	1,0
1.850	3.10129	326	3.25853	310	0.95175	9,4	1.0507	1,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.850	3.10129	326	3.25853	310	0.95175	9,4	1.0507	1,0
.851	.10455	326	.26163	310	.95184	9,4	.0506	1,0
.852	.10781	326	.26474	311	.95193	9,4	.0505	1,0
.853	.11108	327	.26785	311	.95203	9,4	.0504	1,0
.854	.11435	327	.27096	311	.95212	9,3	.0503	1,0
1.855	3.11762	327	3.27408	312	0.95221	9,3	1.0502	1,0
.856	.12090	328	.27719	312	.95231	9,3	.0501	1,0
.857	.12418	328	.28032	312	.95240	9,3	.0500	1,0
.858	.12746	328	.28344	313	.95249	9,3	.0499	1,0
.859	.13074	329	.28657	313	.95259	9,3	.0498	1,0
1.860	3.13403	329	3.28970	313	0.95268	9,2	1.0497	1,0
.861	.13732	329	.29284	314	.95277	9,2	.0496	1,0
.862	.14062	330	.29598	314	.95286	9,2	.0495	1,0
.863	.14392	330	.29912	314	.95296	9,2	.0494	1,0
.864	.14722	330	.30227	315	.95305	9,2	.0493	1,0
1.865	3.15052	331	3.30542	315	0.95314	9,2	1.0492	1,0
.866	.15383	331	.30857	315	.95323	9,1	.0491	1,0
.867	.15714	331	.31172	316	.95332	9,1	.0490	1,0
.868	.16045	331	.31488	316	.95341	9,1	.0489	1,0
.869	.16377	332	.31804	316	.95350	9,1	.0488	1,0
1.870	3.16709	332	3.32121	317	0.95359	9,1	1.0487	1,0
.871	.17041	332	.32438	317	.95368	9,0	.0486	1,0
.872	.17374	333	.32755	317	.95378	9,0	.0485	1,0
.873	.17706	333	.33073	318	.95387	9,0	.0484	1,0
.874	.18040	333	.33390	318	.95396	9,0	.0483	1,0
1.875	3.18373	344	3.33709	318	0.95405	9,0	1.0482	1,0
.876	.18707	334	.34027	319	.95414	9,0	.0481	1,0
.877	.19041	334	.34346	319	.95422	8,9	.0480	1,0
.878	.19376	335	.34665	319	.95431	8,9	.0479	1,0
.879	.19711	335	.34985	320	.95440	8,9	.0478	1,0
1.880	3.20046	335	3.35305	320	0.95449	8,9	1.0477	1,0
.881	.20381	336	.35625	320	.95458	8,9	.0476	1,0
.882	.20717	336	.35946	321	.95467	8,9	.0475	1,0
.883	.21053	336	.36266	321	.95476	8,8	.0474	1,0
.884	.21390	337	.36588	321	.95485	8,8	.0473	1,0
1.885	3.21726	337	3.36909	322	0.95493	8,8	1.0472	1,0
.886	.22063	337	.37231	322	.95502	8,8	.0471	1,0
.887	.22401	338	.37553	322	.95511	8,8	.0470	1,0
.888	.22738	338	.37876	323	.95520	8,8	.0469	1,0
.889	.23076	338	.38199	323	.95529	8,7	.0468	1,0
1.890	3.23415	339	3.38522	323	0.95537	8,7	1.0467	1,0
.891	.23753	339	.38846	324	.95546	8,7	.0466	1,0
.892	.24093	339	.39170	324	.95555	8,7	.0465	1,0
.893	.24432	339	.39494	324	.95563	8,7	.0464	1,0
.894	.24772	340	.39818	325	.95572	8,7	.0463	0,9
1.895	3.25112	340	3.40143	325	0.95581	8,6	1.0462	0,9
.896	.25452	340	.40469	325	.95589	8,6	.0461	0,9
.897	.25792	341	.40794	326	.95598	8,6	.0460	0,9
.898	.26133	341	.41120	326	.95607	8,6	.0460	0,9
.899	.26475	341	.41447	326	.95615	8,6	.0459	0,9
1.900	3.26816	342	3.41773	327	0.95624	8,6	1.0458	0,9
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
1.900	3.26816	342	3.41773	327	0.95624	8,6	1.0458	0,9
.901	.27158	342	.42100	327	.95632	8,5	.0457	0,9
.902	.27500	342	.42427	328	.95641	8,5	.0456	0,9
.903	.27843	343	.42755	328	.95649	8,5	.0455	0,9
.904	.28186	343	.43083	328	.95658	8,5	.0454	0,9
1.905	3.28529	343	3.43412	329	0.95666	8,5	1.0453	0,9
.906	.28873	344	.43740	329	.95675	8,5	.0452	0,9
.907	.29217	344	.44069	329	.95683	8,4	.0451	0,9
.908	.29561	344	.44399	330	.95692	8,4	.0450	0,9
.909	.29906	345	.44728	330	.95700	8,4	.0449	0,9
1.910	3.30250	345	3.45058	330	0.95709	8,4	1.0448	0,9
.911	.30596	345	.45389	331	.95717	8,4	.0447	0,9
.912	.30941	346	.45720	331	.95725	8,4	.0447	0,9
.913	.31287	346	.46051	331	.95734	8,4	.0446	0,9
.914	.31633	346	.46382	332	.95742	8,3	.0445	0,9
1.915	3.31980	347	3.46714	332	0.95750	8,3	1.0444	0,9
.916	.32327	347	.47046	332	.95759	8,3	.0443	0,9
.917	.32674	347	.47379	333	.95767	8,3	.0442	0,9
.918	.33021	348	.47712	333	.95775	8,3	.0441	0,9
.919	.33369	348	.48045	333	.95783	8,3	.0440	0,9
1.920	3.33718	348	3.48378	334	0.95792	8,2	1.0439	0,9
.921	.34066	349	.48712	334	.95800	8,2	.0438	0,9
.922	.34415	349	.49046	334	.95808	8,2	.0438	0,9
.923	.34764	349	.49381	335	.95816	8,2	.0437	0,9
.924	.35114	350	.49716	335	.95825	8,2	.0436	0,9
1.925	3.35464	350	3.50051	335	0.95833	8,2	1.0435	0,9
.926	.35814	350	.50387	336	.95841	8,1	.0434	0,9
.927	.36164	351	.50723	336	.95849	8,1	.0433	0,9
.928	.36515	351	.51059	337	.95857	8,1	.0432	0,9
.929	.36867	351	.51396	337	.95865	8,1	.0431	0,9
1.930	3.37218	352	3.51733	337	0.95873	8,1	1.0430	0,9
.931	.37570	352	.52070	338	.95881	8,1	.0430	0,9
.932	.37922	352	.52408	338	.95890	8,1	.0429	0,9
.933	.38275	353	.52746	338	.95898	8,0	.0428	0,9
.934	.38628	353	.53085	339	.95906	8,0	.0427	0,9
1.935	3.38981	353	3.53423	339	0.95914	8,0	1.0426	0,9
.936	.39335	354	.53763	339	.95922	8,0	.0425	0,9
.937	.39689	354	.54102	340	.95930	8,0	.0424	0,9
.938	.40043	354	.54442	340	.95938	8,0	.0423	0,9
.939	.40397	355	.54782	340	.95945	7,9	.0423	0,9
1.940	3.40752	355	3.55123	341	0.95953	7,9	1.0422	0,9
.941	.41108	355	.55464	341	.95961	7,9	.0421	0,9
.942	.41463	356	.55805	341	.95969	7,9	.0420	0,9
.943	.41819	356	.56147	342	.95977	7,9	.0419	0,9
.944	.42176	356	.56489	342	.95985	7,9	.0418	0,9
1.945	3.42532	357	3.56831	343	0.95993	7,9	1.0417	0,9
.946	.42889	357	.57174	343	.96001	7,8	.0417	0,9
.947	.43247	358	.57517	343	.96009	7,8	.0416	0,9
.948	.43604	358	.57860	344	.96016	7,8	.0415	0,9
.949	.43962	358	.58204	344	.96024	7,8	.0414	0,9
1.950	3.44321	359	3.58548	344	0.96032	7,8	1.0413	0,8
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

Natural Hyperbolic Functions.

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
1.950	3.44321	359	3.58548	344	0.96032	7,8	1.0413	0,8
.951	.44679	359	.58893	345	.96040	7,8	.0412	
.952	.45038	359	.59237	345	.96047	7,7	.0412	
.953	.45398	360	.59583	345	.96055	7,7	.0411	
.954	.45758	360	.59928	346	.96063	7,7	.0410	
1.955	3.46118	360	3.60274	346	0.96071	7,7	1.0409	0,8
.956	.46478	361	.60620	346	.96078	7,7	.0408	
.957	.46839	261	.60967	347	.96086	7,7	.0407	
.958	.47200	361	.61314	347	.96094	7,7	.0407	
.959	.47562	362	.61662	348	.96101	7,6	.0406	
1.960	3.47923	362	3.62009	348	0.96109	7,6	1.0405	0,8
.961	.48286	362	.62357	348	.96117	7,6	.0404	
.962	.48648	363	.62706	349	.96124	7,6	.0403	
.963	.49011	363	.63055	349	.96132	7,6	.0402	
.964	.49374	363	.63404	349	.96139	7,6	.0402	
1.965	3.49738	364	3.63753	350	0.96147	7,6	1.0401	0,8
.966	.50102	364	.64103	350	.96155	7,5	.0400	
.967	.50466	364	.64454	350	.96162	7,5	.0399	
.968	.50831	365	.64804	351	.96170	7,5	.0398	
.969	.51196	365	.65155	351	.96177	7,5	.0397	
1.970	3.51561	366	3.65507	352	0.96185	7,5	1.0397	0,8
.971	.51927	366	.65858	352	.96192	7,5	.0396	
.972	.52293	366	.66211	352	.96199	7,5	.0395	
.973	.52659	367	.66563	353	.96207	7,4	.0394	
.974	.53026	367	.66916	353	.96214	7,4	.0393	
1.975	3.53393	367	3.67269	353	0.96222	7,4	1.0393	0,8
.976	.53760	368	.67623	354	.96229	7,4	.0392	
.977	.54128	368	.67977	354	.96237	7,4	.0391	
.978	.54496	368	.68331	354	.96244	7,4	.0390	
.979	.54865	369	.68686	355	.96251	7,4	.0389	
1.980	3.55234	369	3.69041	355	0.96259	7,3	1.0389	0,8
.981	.55603	369	.69396	356	.96266	7,3	.0388	
.982	.55972	370	.69752	356	.96273	7,3	.0387	
.983	.56342	370	.70108	356	.96281	7,3	.0386	
.984	.56713	370	.70465	357	.96288	7,3	.0386	
1.985	3.57083	371	3.70821	357	0.96295	7,3	1.0385	0,8
.986	.57454	371	.71179	357	.96302	7,3	.0384	
.987	.57826	372	.71536	358	.96310	7,2	.0383	
.988	.58197	372	.71894	358	.96317	7,2	.0382	
.989	.58569	372	.72253	359	.96324	7,2	.0382	
1.990	3.58942	373	3.72611	359	0.96331	7,2	1.0381	0,8
.991	.59315	373	.72971	359	.96339	7,2	.0380	
.992	.59688	373	.73330	360	.96346	7,2	.0379	
.993	.60061	374	.73690	360	.96353	7,2	.0379	
.994	.60435	374	.74050	360	.96360	7,1	.0378	
1.995	3.60809	374	3.74411	361	0.96367	7,1	1.0377	0,8
.996	.61184	375	.74772	361	.96374	7,1	.0376	
.997	.61559	375	.75133	362	.96382	7,1	.0375	
.998	.61934	375	.75495	362	.96389	7,1	.0375	
.999	.62310	376	.75857	362	.96396	7,1	.0374	
2.000	3.62686	376	3.76220	363	0.96403	7,1	1.0373	0,8
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.000	3.62686	376	3.76220	363	0.96403	7,1	1.0373	0,8
.001	.63062	377	.76582	363	.96410	7,1	.0372	
.002	.63439	377	.76946	363	.96417	7,0	.0372	
.003	.63816	377	.77309	364	.96424	7,0	.0371	
.004	.64194	378	.77673	364	.96431	7,0	.0370	
2.005	3.64572	378	3.78038	365	0.96438	7,0	1.0369	0,8
.006	.64950	378	.78402	365	.96445	7,0	.0369	0,8
.007	.65328	379	.78768	365	.96452	7,0	.0368	0,7
.008	.65707	379	.79133	366	.96459	7,0	.0367	
.009	.66087	379	.79499	366	.96466	6,9	.0366	
2.010	3.66466	380	3.79865	366	0.96473	6,9	1.0366	0,7
.011	.66846	380	.80232	367	.96480	6,9	.0365	
.012	.67227	381	.80599	367	.96487	6,9	.0364	
.013	.67608	381	.80966	368	.96493	6,9	.0363	
.014	.67989	381	.81334	368	.96500	6,9	.0363	
2.015	3.68370	382	3.81702	368	0.96507	6,9	1.0362	0,7
.016	.68752	382	.82071	369	.96514	6,9	.0361	
.017	.69134	382	.82440	369	.96521	6,8	.0360	
.018	.69517	383	.82809	370	.96528	6,8	.0360	
.019	.69900	383	.83179	370	.96535	6,8	.0359	
2.020	3.70283	384	3.83549	370	0.96541	6,8	1.0358	0,7
.021	.70667	384	.83919	371	.96548	6,8	.0358	
.022	.71051	384	.84290	371	.96555	6,8	.0357	
.023	.71436	385	.84662	371	.96562	6,8	.0356	
.024	.71821	385	.85033	372	.96568	6,7	.0355	
2.025	3.72206	385	3.85405	372	0.96575	6,7	1.0355	0,7
.026	.72591	386	.85778	373	.96582	6,7	.0354	
.027	.72977	386	.86150	373	.96589	6,7	.0353	
.028	.73364	387	.86524	373	.96595	6,7	.0352	
.029	.73750	387	.86897	374	.96602	6,7	.0352	
2.030	3.74138	387	3.87271	374	0.96609	6,7	1.0351	0,7
.031	.74525	388	.87645	375	.96615	6,7	.0350	
.032	.74913	388	.88020	375	.96622	6,6	.0350	
.033	.75301	388	.88395	375	.96629	6,6	.0349	
.034	.75690	389	.88771	376	.96635	6,6	.0348	
2.035	3.76079	389	3.89147	376	0.96642	6,6	1.0347	0,7
.036	.76468	390	.89523	376	.96648	6,6	.0347	
.037	.76858	390	.89900	377	.96655	6,6	.0346	
.038	.77248	390	.90277	377	.96662	6,6	.0345	
.039	.77638	391	.90654	378	.96668	6,6	.0345	
2.040	3.78029	391	3.91032	378	0.96675	6,5	1.0344	0,7
.041	.78420	391	.91410	378	.96681	6,5	.0343	
.042	.78812	392	.91789	379	.96688	6,5	.0343	
.043	.79204	392	.92168	379	.96694	6,5	.0342	
.044	.79596	393	.92547	380	.96701	6,5	.0341	
2.045	3.79989	393	3.92927	380	0.96707	6,5	1.0340	0,7
.046	.80382	393	.93307	380	.96714	6,5	.0340	
.047	.80776	394	.93688	381	.96720	6,5	.0339	
.048	.81169	394	.94069	381	.96727	6,4	.0338	
.049	.81564	394	.94450	382	.96733	6,4	.0338	
2.050	3.81958	395	3.94832	382	0.96740	6,4	1.0337	0,7
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.050	3.81958	395	3.94832	382	0.96740	6,4	1.0337	0,7
.051	.82353	395	.95214	382	.96746	6,4	.0336	
.052	.82749	396	.95597	383	.96752	6,4	.0336	
.053	.83145	396	.95979	383	.96759	6,4	.0335	
.054	.83541	396	.96363	384	.96765	6,4	.0334	
2.055	3.83937	397	3.96747	384	0.96771	6,4	1.0334	0,7
.056	.84334	397	.97131	384	.96778	6,3	.0333	
.057	.84732	398	.97515	385	.96784	6,3	.0332	
.058	.85129	398	.97900	385	.96790	6,3	.0332	
.059	.85527	398	.98285	386	.96797	6,3	.0331	
2.060	3.85926	399	3.98671	386	0.96803	6,3	1.0330	0,7
.061	.86325	399	.99057	386	.96809	6,3	.0330	
.062	.86724	399	.99444	387	.96816	6,3	.0329	
.063	.87124	400	.99831	387	.96822	6,3	.0328	
.064	.87524	400	4.00218	388	.96828	6,2	.0328	
2.065	3.87924	401	4.00606	388	0.96834	6,2	1.0327	0,7
.066	.88325	401	.00994	388	.96841	6,2	.0326	
.067	.88726	401	.01382	389	.96847	6,2	.0326	
.068	.89128	402	.01771	389	.96853	6,2	.0325	
.069	.89530	402	.02161	390	.96859	6,2	.0324	
2.070	3.89932	403	4.02550	390	0.96865	6,2	1.0324	0,7
.071	.90335	403	.02941	390	.96872	6,2	.0323	
.072	.90738	403	.03331	391	.96878	6,1	.0322	
.073	.91141	404	.03722	391	.96884	6,1	.0322	
.074	.91545	404	.04113	392	.96890	6,1	.0321	
2.075	3.91950	405	4.04505	392	0.96896	6,1	1.0320	0,7
.076	.92354	405	.04897	392	.96902	6,1	.0320	0,6
.077	.92759	405	.05290	393	.96908	6,1	.0319	
.078	.93165	406	.05683	393	.96914	6,1	.0318	
.079	.93571	406	.06076	394	.96920	6,1	.0318	
2.080	3.93977	406	4.06470	394	0.96926	6,1	1.0317	0,6
.081	.94384	407	.06864	394	.96933	6,0	.0316	
.082	.94791	407	.07259	395	.96939	6,0	.0316	
.083	.95198	408	.07654	395	.96945	6,0	.0315	
.084	.95606	408	.08049	396	.96951	6,0	.0315	
2.085	3.96014	408	4.08445	396	0.96957	6,0	1.0314	0,6
.086	.96423	409	.08841	396	.96963	6,0	.0313	
.087	.96832	409	.09238	397	.96969	6,0	.0313	
.088	.97241	410	.09635	397	.96975	6,0	.0312	
.089	.97651	410	.10032	398	.96980	5,9	.0311	
2.090	3.98061	410	4.10430	398	0.96986	5,9	1.0311	0,6
.091	.98472	411	.10828	398	.96992	5,9	.0310	
.092	.98883	411	.11227	399	.96998	5,9	.0309	
.093	.99294	412	.11626	399	.97004	5,9	.0309	
.094	.99706	412	.12026	400	.97010	5,9	.0308	
2.095	4.00119	412	4.12426	400	0.97016	5,9	1.0308	0,6
.096	.00531	413	.12826	401	.97022	5,9	.0307	
.097	.00944	413	.13227	401	.97028	5,9	.0306	
.098	.01358	414	.13628	401	.97034	5,8	.0306	
.099	.01771	414	.14029	402	.97039	5,8	.0305	
2.100	4.02186	414	4.14431	402	0.97045	5,8	1.0304	0,6
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
2.100	4.02186	414	4.14431	402	0.97045	5,8	1.0304	0,6
.101	.02600	415	.14834	403	.97051	5,8	.0304	
.102	.03015	415	.15237	403	.97057	5,8	.0303	
.103	.03431	416	.15640	403	.97063	5,8	.0303	
.104	.03847	416	.16043	404	.97068	5,8	.0302	
2.105	4.04263	416	4.16447	404	0.97074	5,8	1.0301	0,6
.106	.04680	417	.16852	405	.97080	5,8	.0301	
.107	.05097	417	.17257	405	.97086	5,7	.0300	
.108	.05514	418	.17662	406	.97091	5,7	.0300	
.109	.05932	418	.18068	406	.97097	5,7	.0299	
2.110	4.06350	418	4.18474	406	0.97103	5,7	1.0298	0,6
.111	.06769	419	.18881	407	.97109	5,7	.0298	
.112	.07188	419	.19288	407	.97114	5,7	.0297	
.113	.07607	420	.19695	408	.97120	5,7	.0297	
.114	.08027	420	.20103	408	.97126	5,7	.0296	
2.115	4.08448	421	4.20511	408	0.97131	5,7	1.0295	0,6
.116	.08868	421	.20920	409	.97137	5,6	.0295	
.117	.09289	421	.21329	409	.97143	5,6	.0294	
.118	.09711	422	.21738	410	.97148	5,6	.0294	
.119	.10133	422	.22148	410	.97154	5,6	.0293	
2.120	4.10555	423	4.22558	411	0.97159	5,6	1.0292	0,6
.121	.10978	423	.22969	411	.97165	5,6	.0292	
.122	.11401	423	.23380	411	.97171	5,6	.0291	
.123	.11825	424	.23792	412	.97176	5,6	.0291	
.124	.12249	424	.24204	412	.97182	5,6	.0290	
2.125	4.12673	425	4.24617	413	0.97187	5,5	1.0289	0,6
.126	.13098	425	.25029	413	.97193	5,5	.0289	
.127	.13523	425	.25443	414	.97198	5,5	.0288	
.128	.13949	426	.25856	414	.97204	5,5	.0288	
.129	.14375	426	.26271	414	.97209	5,5	.0287	
2.130	4.14801	427	4.26685	415	0.97215	5,5	1.0286	0,6
.131	.15228	427	.27100	415	.97220	5,5	.0286	
.132	.15656	428	.27516	416	.97226	5,5	.0285	
.133	.16083	428	.27932	416	.97231	5,5	.0285	
.134	.16512	428	.28348	417	.97237	5,4	.0284	
2.135	4.16940	429	4.28765	417	0.97242	5,4	1.0284	0,6
.136	.17369	429	.29182	417	.97248	5,4	.0283	
.137	.17798	430	.29599	418	.97253	5,4	.0282	
.138	.18228	430	.30017	418	.97258	5,4	.0282	
.139	.18658	430	.30436	419	.97264	5,4	.0281	
2.140	4.19089	431	4.30855	419	0.97269	5,4	1.0281	0,6
.141	.19520	431	.31274	420	.97275	5,4	.0280	
.142	.19952	432	.31694	420	.97280	5,4	.0280	
.143	.20384	432	.32114	420	.97285	5,4	.0279	
.144	.20816	433	.32534	421	.97291	5,3	.0278	
2.145	4.21249	433	4.32955	421	0.97296	5,3	1.0278	0,6
.146	.21682	433	.33377	422	.97301	5,3	.0277	
.147	.22115	434	.33799	422	.97307	5,3	.0277	
.148	.22549	434	.34221	423	.97312	5,3	.0276	
.149	.22984	435	.34644	423	.97317	5,3	.0276	
2.150	4.23419	435	4.35067	423	0.97323	5,3	1.0275	0,6
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀'	cosh u	ω F₀'	tanh u	ω F₀	coth u	ω F₀'
2.150	4.23419	435	4.35067	423	0.97323	5,3	1.0275	0,6
.151	.23854	435	.35491	424	.97328	5,3	.0275	
.152	.24290	436	.35915	424	.97333	5,3	.0274	
.153	.24726	436	.36339	425	.97338	5,3	.0273	
.154	.25162	437	.36764	425	.97344	5,2	.0273	
2.155	4.25599	437	4.37190	426	0.97349	5,2	1.0272	0,6
.156	.26037	438	.37615	426	.97354	5,2	.0272	0,6
.157	.26475	438	.38042	426	.97359	5,2	.0271	0,5
.158	.26913	438	.38468	427	.97365	5,2	.0271	0,5
.159	.27352	439	.38896	427	.97370	5,2	.0270	0,5
2.160	4.27791	439	4.39323	428	0.97375	5,2	1.0270	0,5
.161	.28230	440	.39751	428	.97380	5,2	.0269	
.162	.28670	440	.40180	429	.97385	5,2	.0268	
.163	.29111	441	.40608	429	.97390	5,2	.0268	
.164	.29551	441	.41038	430	.97396	5,1	.0267	
2.165	4.29993	441	4.41468	430	0.97401	5,1	1.0267	0,5
.166	.30434	442	.41898	430	.97406	5,1	.0266	
.167	.30876	442	.42328	431	.97411	5,1	.0266	
.168	.31319	443	.42760	431	.97416	5,1	.0265	
.169	.31762	443	.43191	432	.97421	5,1	.0265	
2.170	4.32205	444	4.43623	432	0.97426	5,1	1.0264	0,5
.171	.32649	444	.44056	433	.97431	5,1	.0264	
.172	.33093	444	.44488	433	.97436	5,1	.0263	
.173	.33538	445	.44922	434	.97441	5,1	.0263	
.174	.33983	445	.45355	434	.97446	5,0	.0262	
2.175	4.34429	446	4.45790	434	0.97452	5,0	1.0262	0,5
.176	.34875	446	.46224	435	.97457	5,0	.0261	
.177	.35321	447	.46659	435	.97462	5,0	.0260	
.178	.35768	447	.47095	436	.97467	5,0	.0260	
.179	.36215	448	.47531	436	.97472	5,0	.0259	
2.180	4.36663	448	4.47967	437	0.97477	5,0	1.0259	0,5
.181	.37111	448	.48404	437	.97482	5,0	.0258	
.182	.37560	449	.48842	438	.97487	5,0	.0258	
.183	.38009	449	.49279	438	.97491	5,0	.0257	
.184	.38459	450	.49718	438	.97496	4,9	.0257	
2.185	4.38909	450	4.50156	439	0.97501	4,9	1.0256	0,5
.186	.39359	451	.50595	439	.97506	4,9	.0256	
.187	.39810	451	.51035	440	.97511	4,9	.0255	
.188	.40261	451	.51475	440	.97516	4,9	.0255	
.189	.40713	452	.51916	441	.97521	4,9	.0254	
2.190	4.41165	452	4.52356	441	0.97526	4,9	1.0254	0,5
.191	.41617	453	.52798	442	.97531	4,9	.0253	
.192	.42070	453	.53240	442	.97536	4,9	.0253	
.193	.42524	454	.53682	443	.97541	4,9	.0252	
.194	.42978	454	.54125	443	.97545	4,8	.0252	
2.195	4.43432	455	4.54568	443	0.97550	4,8	1.0251	0,5
.196	.43887	455	.55012	444	.97555	4,8	.0251	
.197	.44342	455	.55456	444	.97560	4,8	.0250	
.198	.44798	456	.55900	445	.97565	4,8	.0250	
.199	.45254	456	.56345	445	.97570	4,8	.0249	
2.200	4.45711	457	4.56791	446	0.97574	4,8	1.0249	0,5
u	tan gd u	ω F₀'	sec gd u	ω F₀'	sin gd u	ω F₀'	csc gd u	ω F₀'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.200	4.45711	457	4.56791	446	0.97574	4,8	1.0249	0,5
.201	.46168	457	.57237	446	.97579	4,8	.0248	
.202	.46625	458	.57683	447	.97584	4,8	.0248	
.203	.47083	458	.58130	447	.97589	4,8	.0247	
.204	.47541	459	.58577	448	.97593	4,8	.0247	
2.205	4.48000	459	4.59025	448	0.97598	4,7	1.0246	0,5
.206	.48459	459	.59473	448	.97603	4,7	.0246	
.207	.48919	460	.59922	449	.97608	4,7	.0245	
.208	.49379	460	.60371	449	.97612	4,7	.0245	
.209	.49840	461	.60821	450	.97617	4,7	.0244	
2.210	4.50301	461	4.61271	450	0.97622	4,7	1.0244	0,5
.211	.50762	462	.61721	451	.97626	4,7	.0243	
.212	.51224	462	.62172	451	.97631	4,7	.0243	
.213	.51687	463	.62624	452	.97636	4,7	.0242	
.214	.52149	463	.63076	452	.97640	4,7	.0242	
2.215	4.52613	464	4.63528	453	0.97645	4,7	1.0241	0,5
.216	.53077	464	.63981	453	.97650	4,6	.0241	
.217	.53541	464	.64434	454	.97654	4,6	.0240	
.218	.54005	465	.64888	454	.97659	4,6	.0240	
.219	.54471	465	.65342	454	.97664	4,6	.0239	
2.220	4.54936	466	4.65797	455	0.97668	4,6	1.0239	0,5
.221	.55402	466	.66252	455	.97673	4,6	.0238	
.222	.55869	467	.66708	456	.97678	4,6	.0238	
.223	.56336	467	.67164	456	.97682	4,6	.0237	
.224	.56803	468	.67620	457	.97687	4,6	.0237	
2.225	4.57271	468	4.68078	457	0.97691	4,6	1.0236	0,5
.226	.57739	469	.68535	458	.97696	4,6	.0236	
.227	.58208	469	.68993	458	.97700	4,5	.0235	
.228	.58677	469	.69451	459	.97705	4,5	.0235	
.229	.59147	470	.69910	459	.97709	4,5	.0234	
2.230	4.59617	470	4.70370	460	0.97714	4,5	1.0234	0,5
.231	.60087	471	.70830	460	.97718	4,5	.0233	
.232	.60559	471	.71290	461	.97723	4,5	.0233	
.233	.61030	472	.71751	461	.97727	4,5	.0233	
.234	.61502	472	.72212	462	.97732	4,5	.0232	
2.235	4.61974	473	4.72674	462	0.97736	4,5	1.0232	0,5
.236	.62447	473	.73136	462	.97741	4,5	.0231	
.237	.62921	474	.73599	463	.97745	4,5	.0231	
.238	.63395	474	.74062	463	.97750	4,4	.0230	
.239	.63869	475	.74525	464	.97754	4,4	.0230	
2.240	4.64344	475	4.74989	464	0.97759	4,4	1.0229	0,5
.241	.64819	475	.75454	465	.97763	4,4	.0229	
.242	.65295	476	.75919	465	.97768	4,4	.0228	
.243	.65771	476	.76385	466	.97772	4,4	.0228	
.244	.66247	477	.76851	466	.97776	4,4	.0227	
2.245	4.66724	477	4.77317	467	0.97781	4,4	1.0227	0,5
.246	.67202	478	.77784	467	.97785	4,4	.0227	
.247	.67680	478	.78252	468	.97790	4,4	.0226	
.248	.68158	479	.78719	468	.97794	4,4	.0226	
.249	.68637	479	.79188	469	.97798	4,4	.0225	
2.250	4.69117	480	4.79657	469	0.97803	4,3	1.0225	0,5
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
2.250	4.69117	480	4.79657	469	0.97803	4,3	1.0225	0,5
.251	.69597	480	.80126	470	.97807	4,3	.0224	
.252	.70077	481	.80596	470	.97811	4,3	.0224	
.253	.70558	481	.81066	471	.97816	4,3	.0223	
.254	.71039	482	.81537	471	.97820	4,3	.0223	0,5
2.255	4.71521	482	4.82008	472	0.97824	4,3	1.0222	0,4
.256	.72003	482	.82480	472	.97829	4,3	.0222	
.257	.72486	483	.82952	472	.97833	4,3	.0222	
.258	.72969	483	.83425	473	.97837	4,3	.0221	
.259	.73453	484	.83898	473	.97841	4,3	.0221	
2.260	4.73937	484	4.84372	474	0.97846	4,3	1.0220	0,4
.261	.74422	485	.84846	474	.97850	4,3	.0220	
.262	.74907	485	.85321	475	.97854	4,2	.0219	
.263	.75392	486	.85796	475	.97858	4,2	.0219	
.264	.75878	486	.86272	476	.97863	4,2	.0218	
2.265	4.76365	487	4.86748	476	0.97867	4,2	1.0218	0,4
.266	.76852	487	.87224	477	.97871	4,2	.0218	
.267	.77339	488	.87701	477	.97875	4,2	.0217	
.268	.77827	488	.88179	478	.97879	4,2	.0217	
.269	.78316	489	.88657	478	.97884	4,2	.0216	
2.270	4.78804	489	4.89136	479	0.97888	4,2	1.0216	0,4
.271	.79294	490	.89615	479	.97892	4,2	.0215	
.272	.79784	490	.90094	480	.97896	4,2	.0215	
.273	.80274	491	.90574	480	.97900	4,2	.0214	
.274	.80765	491	.91055	481	.97905	4,1	.0214	
2.275	4.81256	492	4.91536	481	0.97909	4,1	1.0214	0,4
.276	.81748	492	.92017	482	.97913	4,1	.0213	
.277	.82240	492	.92499	482	.97917	4,1	.0213	
.278	.82733	493	.92982	483	.97921	4,1	.0212	
.279	.83226	493	.93465	483	.97925	4,1	.0212	
2.280	4.83720	494	4.93948	484	0.97929	4,1	1.0211	0,4
.281	.84214	494	.94432	484	.97933	4,1	.0211	
.282	.84709	495	.94917	485	.97937	4,1	.0211	
.283	.85204	495	.95402	485	.97942	4,1	.0210	
.284	.85699	496	.95887	486	.97946	4,1	.0210	
2.285	4.86196	496	4.96373	486	0.97950	4,1	1.0209	0,4
.286	.86692	497	.96859	487	.97954	4,1	.0209	
.287	.87189	497	.97346	487	.97958	4,0	.0208	
.288	.87687	498	.97834	488	.97962	4,0	.0208	
.289	.88185	498	.98322	488	.97966	4,0	.0208	
2.290	4.88684	499	4.98810	489	0.97970	4,0	1.0207	0,4
.291	.89183	499	.99299	489	.97974	4,0	.0207	
.292	.89682	500	.99789	490	.97978	4,0	.0206	
.293	.90182	500	5.00279	490	.97982	4,0	.0206	
.294	.90683	501	.00769	491	.97986	4,0	.0206	
2.295	4.91184	501	5.01260	491	0.97990	4,0	1.0205	0,4
.296	.91685	502	.01751	492	.97994	4,0	.0205	
.297	.92187	502	.02243	492	.97998	4,0	.0204	
.298	.92690	503	.02736	493	.98002	4,0	.0204	
.299	.93193	503	.03229	493	.98006	3,9	.0203	
2.300	4.93696	504	5.03722	494	0.98010	3,9	1.0203	0,4
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

Natural Hyperbolic Functions.

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
2.300	4.93696	504	5.03722	494	0.98010	3,9	1.0203	0,4
.301	.94200	504	.04216	494	.98014	3,9	.0203	
.302	.94705	505	.04710	495	.98018	3,9	.0202	
.303	.95210	505	.05205	495	.98021	3,9	.0202	
.304	.95715	506	.05701	496	.98025	3,9	.0201	
2.305	4.96221	506	5.06197	496	0.98029	3,9	1.0201	0,4
.306	.96727	507	.06693	497	.98033	3,9	.0201	
.307	.97234	507	.07190	497	.98037	3,9	.0200	
.308	.97742	508	.07688	498	.98041	3,9	.0200	
.309	.98250	508	.08186	498	.98045	3,9	.0199	
2.310	4.98758	509	5.08684	499	0.98049	3,9	1.0199	0,4
.311	.99267	509	.09183	499	.98053	3,9	.0199	
.312	.99777	510	.09683	500	.98056	3,8	.0198	
.313	5.00286	510	.10183	500	.98060	3,8	.0198	
.314	.00797	511	.10683	501	.98064	3,8	.0197	
2.315	5.01308	511	5.11184	501	0.98068	3,8	1.0197	0,4
.316	.01819	512	.11686	502	.98072	3,8	.0197	
.317	.02331	512	.12188	502	.98076	3,8	.0196	
.318	.02844	513	.12691	503	.98079	3,8	.0196	
.319	.03357	513	.13194	503	.98083	3,8	.0195	
2.320	5.03870	514	5.13697	504	0.98087	3,8	1.0195	0,4
.321	.04384	514	.14202	504	.98091	3,8	.0195	
.322	.04898	515	.14706	505	.98095	3,8	.0194	
.323	.05413	515	.15211	505	.98098	3,8	.0194	
.324	.05929	516	.15717	506	.98102	3,8	.0193	
2.325	5.06445	516	5.16223	506	0.98106	3,8	1.0193	0,4
.326	.06961	517	.16730	507	.98110	3,7	.0193	
.327	.07478	517	.17237	507	.98113	3,7	.0192	
.328	.07996	518	.17745	508	.98117	3,7	.0192	
.329	.08514	518	.18253	509	.98121	3,7	.0192	
2.330	5.09032	519	5.18762	509	0.98124	3,7	1.0191	0,4
.331	.09551	519	.19271	510	.98128	3,7	.0191	
.332	.10071	520	.19781	510	.98132	3,7	.0190	
.333	.10591	520	.20291	511	.98136	3,7	.0190	
.334	.11111	521	.20802	511	.98139	3,7	.0190	
2.335	5.11632	521	5.21314	512	0.98143	3,7	1.0189	0,4
.336	.12154	522	.21825	512	.98147	3,7	.0189	
.337	.12676	522	.22338	513	.98150	3,7	.0188	
.338	.13199	523	.22851	513	.98154	3,7	.0188	
.339	.13722	523	.23364	514	.98158	3,7	.0188	
2.340	5.14245	524	5.23878	514	0.98161	3,6	1.0187	0,4
.341	.14770	524	.24393	515	.98165	3,6	.0187	
.342	.15294	525	.24908	515	.98169	3,6	.0187	
.343	.15819	525	.25423	516	.98172	3,6	.0186	
.344	.16345	526	.25939	516	.98176	3,6	.0186	
2.345	5.16871	526	5.26456	517	0.98179	3,6	1.0185	0,4
.346	.17398	527	.26973	517	.98183	3,6	.0185	
.347	.17925	527	.27491	518	.98187	3,6	.0185	
.348	.18453	528	.28009	518	.98190	3,6	.0184	
.349	.18981	529	.28528	519	.98194	3,6	.0184	
2.350	5.19510	529	5.29047	520	0.98197	3,6	1.0184	0,4
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀′	cosh u*	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.350	5.19510	529	5.29047	520	0.98197	3,6	1.0184	0,4
.351	.20039	530	.29567	520	.98201	3,6	.0183	
.352	.20569	530	.30087	521	.98204	3,6	.0183	
.353	.21100	531	.30608	521	.98208	3,6	.0182	
.354	.21630	531	.31129	522	.98212	3,5	.0182	
2.355	5.22162	532	5.31651	522	0.98215	3,5	1.0182	0,4
.356	.22694	532	.32174	523	.98219	3,5	.0181	
.357	.23226	533	.32697	523	.98222	3,5	.0181	
.358	.23759	533	.33220	524	.98226	3,5	.0181	
.359	.24293	534	.33744	524	.98229	3,5	.0180	
2.360	5.24827	534	5.34269	525	0.98233	3,5	1.0180	0,4
.361	.25361	535	.34794	525	.98236	3,5	.0180	
.362	.25896	535	.35319	526	.98240	3,5	.0179	
.363	.26432	536	.35845	526	.98243	3,5	.0179	
.364	.26968	536	.36372	527	.98247	3,5	.0178	
2.365	5.27504	537	5.36899	528	0.98250	3,5	1.0178	0,4
.366	.28042	537	.37427	528	.98254	3,5	.0178	
.367	.28579	538	.37955	529	.98257	3,5	.0177	
.368	.29118	538	.38484	529	.98261	3,4	.0177	
.369	.29656	539	.39014	530	.98264	3,4	.0177	
2.370	5.30196	540	5.39544	530	0.98267	3,4	1.0176	0,4
.371	.30735	540	.40074	531	.98271	3,4	.0176	
.372	.31276	541	.40605	531	.98274	3,4	.0176	
.373	[illegible]	[illegible]	[illegible]	532	.98278	3,4	.0175	
.374	[illegible]	[illegible]	[illegible]	532	[illegible]	[illegible]	[illegible]	
2.375	5.32900	542	5.42201	533	0.98285	3,4	1.0175	0,4
.376	.33442	543	.42735	533	.98288	3,4	.0174	0,4
.377	.33985	543	.43268	534	.98291	3,4	.0174	0,4
.378	.34529	544	.43803	535	.98295	3,4	.0173	0,3
.379	.35073	544	.44337	535	.98298	3,4	.0173	0,3
2.380	5.35618	545	5.44873	536	0.98301	3,4	1.0173	0,3
.381	.36163	545	.45409	536	.98305	3,4	.0172	
.382	.36708	546	.45945	537	.98308	3,4	.0172	
.383	.37255	546	.46482	537	.98311	3,3	.0172	
.384	.37801	547	.47020	538	.98315	3,3	.0171	
2.385	5.38349	548	5.47558	538	0.98318	3,3	1.0171	0,3
.386	.38897	548	.48096	539	.98322	3,3	.0171	
.387	.39445	549	.48635	539	.98325	3,3	.0170	
.388	.39994	549	.49175	540	.98328	3,3	.0170	
.389	.40543	550	.49715	541	.98331	3,3	.0170	
2.390	5.41093	550	5.50256	541	0.98335	3,3	1.0169	0,3
.391	.41644	551	.50798	542	.98338	3,3	.0169	
.392	.42195	551	.51339	542	.98341	3,3	.0169	
.393	.42746	552	.51882	543	.98345	3,3	.0168	
.394	.43299	552	.52425	543	.98348	3,3	.0168	
2.395	5.43851	553	5.52969	544	0.98351	3,3	1.0168	0,3
.396	.44405	554	.53513	544	.98354	3,3	.0167	
.397	.44958	554	.54057	545	.98358	3,3	.0167	
.398	.45513	555	.54603	546	.98361	3,3	.0167	
.399	.46068	555	.55148	546	.98364	3,2	.0166	
2.400	5.46623	556	5.55695	547	0.98367	3,2	1.0166	0,3
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.400	5.46623	556	5.55695	547	0.98367	3,2	1.0166	0,3
.401	.47179	556	.56242	547	.98371	3,2	.0166	
.402	.47735	557	.56789	548	.98374	3,2	.0165	
.403	.48292	557	.57337	548	.98377	3,2	.0165	
.404	.48850	558	.57886	549	.98380	3,2	.0165	
2.405	5.49408	558	5.58435	549	0.98384	3,2	1.0164	0,3
.406	.49967	559	.58984	550	.98387	3,2	.0164	
.407	.50526	560	.59535	551	.98390	3,2	.0164	
.408	.51086	560	.60085	551	.98393	3,2	.0163	
.409	.51646	561	.60637	552	.98396	3,2	.0163	
2.410	5.52207	561	5.61189	552	0.98400	3,2	1.0163	0,3
.411	.52769	562	.61741	553	.98403	3,2	.0162	
.412	.53331	562	.62294	553	.98406	3,2	.0162	
.413	.53893	563	.62848	554	.98409	3,2	.0162	
.414	.54456	563	.63402	554	.98412	3,2	.0161	
2.415	5.55020	564	5.63957	555	0.98415	3,1	1.0161	0,3
.416	.55584	565	.64512	556	.98418	3,1	.0161	
.417	.56149	565	.65068	556	.98422	3,1	.0160	
.418	.56715	566	.65624	557	.98425	3,1	.0160	
.419	.57280	566	.66181	557	.98428	3,1	.0160	
2.420	5.57847	567	5.66739	558	0.98431	3,1	1.0159	0,3
.421	.58414	567	.67297	558	.98434	3,1	.0159	
.422	.58981	568	.67856	559	.98437	3,1	.0159	
.423	.59550	568	.68415	560	.98440	3,1	.0158	
.424	.60118	569	.68975	560	.98443	3,1	.0158	
2.425	5.60688	570	5.69535	561	0.98446	3,1	1.0158	0,3
.426	.61257	570	.70096	561	.98450	3,1	.0157	
.427	.61828	571	.70658	562	.98453	3,1	.0157	
.428	.62399	571	.71220	562	.98456	3,1	.0157	
.429	.62970	572	.71783	563	.98459	3,1	.0157	
2.430	5.63542	572	5.72346	564	0.98462	3,1	1.0156	0,3
.431	.64115	573	.72910	564	.98465	3,0	.0156	
.432	.64688	573	.73474	565	.98468	3,0	.0156	
.433	.65262	574	.74039	565	.98471	3,0	.0155	
.434	.65836	575	.74605	566	.98474	3,0	.0155	
2.435	5.66411	575	5.75171	566	0.98477	3,0	1.0155	0,3
.436	.66986	576	.75738	567	.98480	3,0	.0154	
.437	.67563	576	.76305	568	.98483	3,0	.0154	
.438	.68139	577	.76873	568	.98486	3,0	.0154	
.439	.68716	577	.77441	569	.98489	3,0	.0153	
2.440	5.69294	578	5.78010	569	0.98492	3,0	1.0153	0,3
.441	.69872	579	.78580	570	.98495	3,0	.0153	
.442	.70451	579	.79150	570	.98498	3,0	.0152	
.443	.71031	580	.79721	571	.98501	3,0	.0152	
.444	.71611	580	.80292	572	.98504	3,0	.0152	
2.445	5.72191	581	5.80864	572	0.98507	3,0	1.0152	0,3
.446	.72772	581	.81436	573	.98510	3,0	.0151	
.447	.73354	582	.82009	573	.98513	3,0	.0151	
.448	.73936	583	.82583	574	.98516	2,9	.0151	
.449	.74519	583	.83157	575	.98519	2,9	.0150	
2.450	5.75103	584	5.83732	575	0.98522	2,9	1.0150	0,3
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.450	5.75103	584	5.83732	575	0.98522	2,9	1.0150	0,3
.451	.75687	584	.84307	576	.98525	2,9	.0150	
.452	.76271	585	.84883	576	.98528	2,9	.0149	
.453	.76856	585	.85460	577	.98530	2,9	.0149	
.454	.77442	586	.86037	577	.98533	2,9	.0149	
2.455	5.78029	587	5.86615	578	0.98536	2,9	1.0149	0,3
.456	.78615	587	.87193	579	.98539	2,9	.0148	
.457	.79203	588	.87772	579	.98542	2,9	.0148	
.458	.79791	588	.88352	580	.98545	2,9	.0148	
.459	.80380	589	.88932	580	.98548	2,9	.0147	
2.460	5.80969	590	5.89512	581	0.98551	2,9	1.0147	0,3
.461	.81559	590	.90094	582	.98554	2,9	.0147	
.462	.82149	591	.90675	582	.98556	2,9	.0146	
.463	.82740	591	.91258	583	.98559	2,9	.0146	
.464	.83332	592	.91841	583	.98562	2,9	.0146	
2.465	5.83924	592	5.92425	584	0.98565	2,8	1.0146	0,3
.466	.84516	593	.93009	585	.98568	2,8	.0145	
.467	.85110	594	.93594	585	.98571	2,8	.0145	
.468	.85704	594	.94179	586	.98574	2,8	.0145	
.469	.86298	595	.94765	586	.98576	2,8	.0144	
2.470	5.86893	595	5.95352	587	0.98579	2,8	1.0144	0,3
.471	.87489	596	.95939	587	.98582	2,8	.0144	
.372	.88085	597	.96527	588	.98585	2,8	.0144	
.473	.88682	597	.97115	589	.98588	2,8	.0143	
.474	.89279	498	.97704	589	.98590	2,8	.0143	
2.475	5.89877	598	5.98294	590	0.98593	2,8	1.0143	0,3
.476	.90476	599	.98884	591	.98596	2,8	.0142	
.477	.91075	599	.99474	591	.98599	2,8	.0142	
.478	.91675	600	6.00066	592	.98602	2,8	.0142	
.479	.92275	601	.00658	592	.98604	2,8	.0142	
2.480	5.92876	601	6.01250	593	0.98607	2,8	1.0141	0,3
.481	.93478	602	.01844	593	.98610	2,8	.0141	
.482	.94080	602	.02437	594	.98613	2,8	.0141	
.483	.94682	603	.03032	595	.98615	2,7	.0140	
.484	.95286	604	.03627	595	.98618	2,7	.0140	
2.485	5.95890	604	6.04222	596	0.98621	2,7	1.0140	0,3
.486	.96494	605	.04818	596	.98624	2,7	.0140	
.487	.97099	605	.05415	597	.98626	2,7	.0139	
.488	.97705	606	.06013	598	.98629	2,7	.0139	
.489	.98311	607	.06611	598	.98632	2,7	.0139	
2.490	5.98918	607	6.07209	599	0.98635	2,7	1.0138	0,3
.491	.99526	608	.07809	600	.98637	2,7	.0138	
.492	6.00134	608	.08408	600	.98640	2,7	.0138	
.493	.00743	609	.09009	601	.98643	2,7	.0138	
.494	.01352	610	.09610	601	.98645	2,7	.0137	
2.495	6.01962	610	6.10211	602	0.98648	2,7	1.0137	0,3
.496	.02572	611	.10814	603	.98651	2,7	.0137	
.497	.03183	611	.11417	603	.98653	2,7	.0136	
.498	.03795	612	.12020	604	.98656	2,7	.0136	
.499	.04408	613	.12624	604	.98659	2,7	.0136	
2.500	6.05020	613	6.13229	605	0.98661	2,7	1.0136	0,3
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.500	6.05020	613	6.13229	605	0.98561	2,7	1.0136	0,3
.501	.05634	614	.13834	605	.98564	2,7	.0135	
.502	.06248	614	.14440	606	.98567	2,6	.0135	
.503	.06863	615	.15047	607	.98669	2,6	.0135	
.504	.07478	616	.15654	607	.98672	2,6	.0135	
2.505	6.08094	616	6.16262	608	0.98675	2,6	1.0134	0,3
.506	.08711	617	.16870	609	.98677	2,6	.0134	
.507	.09328	617	.17479	609	.98680	2,6	.0134	
.508	.09946	618	.18089	610	.98683	2,6	.0134	
.509	.10564	619	.18699	611	.98685	2,6	.0133	
2.510	6.11183	619	6.19310	611	0.98688	2,6	1.0133	0,3
.511	.11803	620	.19921	612	.98690	2,6	.0133	
.512	.12423	621	.20534	612	.98693	2,6	.0132	
.513	.13044	621	.21146	613	.98696	2,6	.0132	
.514	.13665	622	.21760	614	.98698	2,6	.0132	
2.515	6.14287	622	6.22374	614	0.98701	2,6	1.0132	0,3
.516	.14910	623	.22988	615	.98703	2,6	.0131	
.517	.15533	624	.23603	616	.98706	2,6	.0131	
.518	.16157	624	.24219	616	.98708	2,6	.0131	
.519	.16782	625	.24836	617	.98711	2,6	.0131	
2.520	6.17407	625	6.25453	617	0.98714	2,6	1.0130	0,3
.521	.18033	626	.26071	618	.98716	2,6	.0130	
.522	.18659	627	.26689	619	.98719	2,5	.0130	
.523	.19286	627	.27308	619	.98721	2,5	.0130	
.524	.19914	628	.27927	620	.98724	2,5	.0129	
2.525	6.20542	629	6.28548	621	0.98726	2,5	1.0129	0,3
.526	.21171	629	.29169	621	.98729	2,5	.0129	
.527	.21800	630	.29790	622	.98731	2,5	.0128	
.528	.22430	630	.30412	622	.98734	2,5	.0128	
.529	.23061	631	.31035	623	.98736	2,5	.0128	
2.530	6.23692	632	6.31658	624	0.98739	2,5	1.0128	0,3
.531	.24324	632	.32282	624	.98741	2,5	.0127	
.532	.24957	633	.32907	625	.98744	2,5	.0127	
.533	.25590	634	.33532	626	.98746	2,5	.0127	
.534	.26224	634	.34158	626	.98749	2,5	.0127	
2.535	6.26858	635	6.34785	627	0.98751	2,5	1.0126	0,3
.536	.27494	635	.35412	627	.98754	2,5	.0126	
.537	.28129	636	.36040	628	.98756	2,5	.0125	
.538	.28766	637	.36668	629	.98759	2,5	.0126	
.539	.29403	637	.37297	629	.98761	2,5	.0125	
2.540	6.30040	638	6.37927	630	0.98764	2,5	1.0125	0,3
.541	.30678	639	.38557	631	.98766	2,5	.0125	0,3
.542	.31317	639	.39188	631	.98769	2,4	.0125	0,3
.543	.31957	640	.39820	632	.98771	2,4	.0124	0,3
.544	.32597	640	.40452	633	.98773	2,4	.0124	0,2
2.545	6.33238	641	6.41085	633	0.98776	2,4	1.0124	0,2
.546	.33879	642	.41719	634	.98778	2,4	.0124	
.547	.34521	642	.42353	635	.98781	2,4	.0123	
.548	.35164	643	.42988	635	.98783	2,4	.0123	
.549	.35807	644	.43623	636	.98786	2,4	.0123	
2.550	6.36451	644	6.44259	636	0.98788	2,4	1.0123	0,2
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
2.550	6.36451	644	6.44259	636	0.98788	2,4	1.0123	0,2
.551	.37096	645	.44896	637	.98790	2,4	.0122	
.552	.37741	646	.45533	638	.98793	2,4	.0122	
.553	.38387	646	.46172	638	.98795	2,4	.0122	
.554	.39033	647	.46810	639	.98798	2,4	.0122	
2.555	6.39680	647	6.47450	640	0.98800	2,4	1.0121	0,2
.556	.40328	648	.48090	640	.98802	2,4	.0121	
.557	.40977	649	.48730	641	.98805	2,4	.0121	
.558	.41626	649	.49372	642	.98807	2,4	.0121	
.559	.42275	650	.50014	642	.98810	2,4	.0120	
2.560	6.42926	651	6.50656	643	0.98812	2,4	1.0120	0,2
.561	.43577	651	.51299	644	.98814	2,4	.0120	
.562	.44228	652	.51943	644	.98817	2,4	.0120	
.563	.44880	653	.52588	645	.98819	2,3	.0120	
.564	.45533	653	.53233	646	.98821	2,3	.0119	
2.565	6.46187	654	6.53879	646	0.98824	2,3	1.0119	0,2
.566	.46841	655	.54525	647	.98826	2,3	.0119	
.567	.47496	655	.55173	647	.98828	2,3	.0119	
.568	.48152	656	.55820	648	.98831	2,3	.0118	
.569	.48808	656	.56469	649	.98833	2,3	.0118	
2.570	6.49464	657	6.57118	649	0.98835	2,3	1.0118	0,2
.571	.50122	658	.57768	650	.98838	2,3	.0118	
.572	.50780	658	.58418	651	.98840	2,3	.0117	
.573	.51439	659	.59069	651	.98842	2,3	.0117	
.574	.52098	660	.59721	652	.98845	2,3	.0117	
2.575	6.52758	660	6.60374	653	0.98847	2,3	1.0117	0,2
.576	.53419	661	.61027	653	.98849	2,3	.0116	
.577	.54080	662	.61680	654	.98851	2,3	.0116	
.578	.54742	662	.62335	655	.98854	2,3	.0116	
.579	.55405	663	.62990	655	.98856	2,3	.0116	
2.580	6.56068	664	6.63646	656	0.98858	2,3	1.0115	0,2
.581	.56732	664	.64302	657	.98860	2,3	.0115	
.582	.57397	665	.64959	657	.98863	2,3	.0115	
.583	.58062	666	.65617	658	.98865	2,3	.0115	
.584	.58728	666	.66275	659	.98867	2,3	.0115	
2.585	6.59395	667	6.66934	659	0.98870	2,2	1.0114	0,2
.586	.60062	668	.67594	660	.98872	2,2	.0114	
.587	.60730	668	.68254	661	.98874	2,2	.0114	
.588	.61398	669	.68915	661	.98876	2,2	.0114	
.589	.62068	670	.69577	662	.98878	2,2	.0113	
2.590	6.62738	670	6.70240	663	0.98881	2,2	1.0113	0,2
.591	.63408	671	.70903	663	.98883	2,2	.0113	
.592	.64079	672	.71566	664	.98885	2,2	.0113	
.593	.64751	672	.72231	665	.98887	2,2	.0113	
.594	.65424	673	.72896	665	.98890	2,2	.0112	
2.595	6.66097	674	6.73562	666	0.98892	2,2	1.0112	0,2
.596	.66771	674	.74228	667	.98894	2,2	.0112	
.597	.67446	675	.74895	667	.98896	2,2	.0112	
.598	.68121	676	.75563	668	.98898	2,2	.0111	
.599	.68797	676	.76231	669	.98901	2,2	.0111	
2.600	6.69473	677	6.76901	669	0.98903	2,2	1.0111	0,2
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.600	6.69473	677	6.76901	669	0.98903	2,2	1.0111	0,2
.601	.70150	678	.77570	670	.98905	2,2	.0111	
.602	.70828	678	.78241	671	.98907	2,2	.0110	
.603	.71507	679	.78912	672	.98909	2,2	.0110	
.604	.72186	680	.79584	672	.98911	2,2	.0110	
2.605	6.72866	680	6.80256	673	0.98914	2,2	1.0110	0,2
.606	.73547	681	.80930	674	.98916	2,2	.0110	
.607	.74228	682	.81604	674	.98918	2,2	.0109	
.608	.74910	682	.82278	675	.98920	2,1	.0109	
.609	.75593	683	.82953	676	.98922	2,1	.0109	
2.610	6.76276	684	6.83629	676	0.98924	2,1	1.0109	0,2
.611	.76960	684	.84306	677	.98926	2,1	.0109	
.612	.77644	685	.84983	678	.98929	2,1	.0108	
.613	.78330	686	.85661	678	.98931	2,1	.0108	
.614	.79016	686	.86340	679	.98933	2,1	.0108	
2.615	6.79702	687	6.87019	680	0.98935	2,1	1.0108	0,2
.616	.80390	688	.87699	680	.98937	2,1	.0107	
.617	.81078	688	.88380	681	.98939	2,1	.0107	
.618	.81767	689	.89061	682	.98941	2,1	.0107	
.619	.82456	690	.89744	682	.98943	2,1	.0107	
2.620	6.83146	690	6.90426	683	0.98946	2,1	1.0107	0,2
.621	.83837	691	.91110	684	.98948	2,1	.0106	
.622	.84528	692	.91794	685	.98950	2,1	.0106	
.623	.85220	692	.92479	685	.98952	2,1	.0106	
.624	.85913	693	.93164	686	.98954	2,1	.0106	
2.625	6.86607	694	6.93851	687	0.98956	2,1	1.0106	0,2
.626	.87301	695	.94538	687	.98958	2,1	.0105	
.627	.87996	695	.95225	688	.98960	2,1	.0105	
.628	.88691	696	.95914	689	.98962	2,1	.0105	
.629	.89388	697	.96603	689	.98964	2,1	.0105	
2.630	6.90085	697	6.97292	690	0.98966	2,1	1.0104	0,2
.631	.90782	698	.97983	691	.98968	2,1	.0104	
.632	.91481	699	.98674	691	.98970	2,0	.0104	
.633	.92180	699	.99366	692	.98972	2,0	.0104	
.634	.92879	700	7.00058	693	.98974	2,0	.0104	
2.635	6.93580	701	7.00752	694	0.98977	2,0	1.0103	0,2
.636	.94281	701	.01446	694	.98979	2,0	.0103	
.637	.94983	702	.02140	695	.98981	2,0	.0103	
.638	.95685	703	.02835	696	.98983	2,0	.0103	
.639	.96388	704	.03532	696	.98985	2,0	.0103	
2.640	6.97092	704	7.04228	697	0.98987	2,0	1.0102	0,2
.641	.97797	705	.04926	698	.98989	2,0	.0102	
.642	.98502	706	.05624	699	.98991	2,0	.0102	
.643	.99208	706	.06323	699	.98993	2,0	.0102	
.644	.99915	707	.07022	700	.98995	2,0	.0102	
2.645	7.00622	708	7.07723	701	0.98997	2,0	1.0101	0,2
.646	.01330	708	.08423	701	.98999	2,0	.0101	
.647	.02039	709	.09125	702	.99001	2,0	.0101	
.648	.02748	710	.09828	703	.99003	2,0	.0101	
.649	.03458	711	.10531	703	.99005	2,0	.0101	
2.650	7.04169	711	7.11234	704	0.99007	2,0	1.0100	0,2
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.650	7.04169	711	7.11234	704	0.99007	2,0	1.0100	0,2
.651	.04881	712	.11939	705	.99009	2,0	.0100	
.652	.05593	713	.12644	706	.99011	2,0	.0100	
.653	.06306	713	.13350	706	.99013	2,0	.0100	
.654	.07020	714	.14057	707	.99015	2,0	.0100	
2.655	7.07734	715	7.14764	708	0.99016	2,0	1.0099	0,2
.656	.08449	715	.15472	708	.99018	2,0	.0099	
.657	.09165	716	.16181	709	.99020	1,9	.0099	
.658	.09882	717	.16891	710	.99022	1,9	.0099	
.659	.10599	718	.17601	711	.99024	1,9	.0099	
2.660	7.11317	718	7.18312	711	0.99026	1,9	1.0098	0,2
.661	.12036	719	.19024	712	.99028	1,9	.0098	
.662	.12755	720	.19736	713	.99030	1,9	.0098	
.663	.13475	720	.20449	713	.99032	1,9	.0098	
.664	.14196	721	.21163	714	.99034	1,9	.0098	
2.665	7.14918	722	7.21877	715	0.99036	1,9	1.0097	0,2
.666	.15640	723	.22593	716	.99038	1,9	.0097	
.667	.16363	723	.23309	716	.99040	1,9	.0097	
.668	.17086	724	.24025	717	.99042	1,9	.0097	
.669	.17811	725	.24743	718	.99044	1,9	.0097	
2.670	7.18536	725	7.25461	719	0.99045	1,9	1.0096	0,2
.671	.19262	726	.26180	719	.99047	1,9	.0096	
.672	.19988	727	.26900	720	.99049	1,9	.0096	
.673	.20715	728	.27620	721	.99051	1,9	.0096	
.674	.21443	728	.28341	721	.99053	1,9	.0096	
2.675	7.22172	729	7.29063	722	0.99055	1,9	1.0095	0,2
.676	.22902	730	.29785	723	.99057	1,9	.0095	
.677	.23632	731	.30509	724	.99059	1,9	.0095	
.678	.24363	731	.31233	724	.99060	1,9	.0095	
.679	.25094	732	.31957	725	.99062	1,9	.0095	
2.680	7.25827	733	7.32683	726	0.99064	1,9	1.0094	0,2
.681	.26560	733	.33409	727	.99066	1,9	.0094	
.682	.27293	734	.34136	727	.99068	1,9	.0094	
.683	.28028	735	.34864	728	.99070	1,9	.0094	
.684	.28763	736	.35592	729	.99072	1,8	.0094	
2.685	7.29499	736	7.36321	729	0.99073	1,8	1.0094	0,2
.686	.30236	737	.37051	730	.99075	1,8	.0093	
.687	.30973	738	.37782	731	.99077	1,8	.0093	
.688	.31711	739	.38513	732	.99079	1,8	.0093	
.689	.32450	739	.39245	732	.99081	1,8	.0093	
2.690	7.33190	740	7.39978	733	0.99083	1,8	1.0093	0,2
.691	.33930	741	.40711	734	.99084	1,8	.0092	
.692	.34671	741	.41446	735	.99086	1,8	.0092	
.693	.35413	742	.42181	735	.99088	1,8	.0092	
.694	.36156	743	.42917	736	.99090	1,8	.0092	
2.695	7.36899	744	7.43653	737	0.99092	1,8	1.0092	0,2
.696	.37643	744	.44390	738	.99094	1,8	.0091	
.697	.38388	745	.45128	738	.99095	1,8	.0091	
.698	.39133	746	.45867	739	.99097	1,8	.0091	
.699	.39879	747	.46607	740	.99099	1,8	.0091	
2.700	7.40626	747	7.47347	741	0.99101	1,8	1.0091	0,2
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
2.700	7.40626	747	7.47347	741	0.99101	1,8	1.0091	0,2
.701	.41374	748	.48088	741	.99103	1,8	.0091	
.702	.42122	749	.48830	742	.99104	1,8	.0090	
.703	.42872	750	.49572	743	.99106	1,8	.0090	
.704	.43622	750	.50315	744	.99108	1,8	.0090	
2.705	7.44372	751	7.51059	744	0.99110	1,8	1.0090	0,2
.706	.45124	752	.51804	745	.99111	1,8	.0090	
.707	.45876	753	.52550	746	.99113	1,8	.0089	
.708	.46629	753	.53296	747	.99115	1,8	.0089	
.709	.47383	754	.54043	747	.99117	1,8	.0089	
2.710	7.48137	755	7.54791	748	0.99118	1,8	1.0089	0,2
.711	.48892	756	.55539	749	.99120	1,8	.0089	
.712	.49648	756	.56288	750	.99122	1,7	.0089	
.713	.50405	757	.57038	750	.99124	1,7	.0088	
.714	.51162	758	.57789	751	.99125	1,7	.0088	
2.715	7.51920	759	7.58541	752	0.99127	1,7	1.0088	0,2
.716	.52679	759	.59293	753	.99129	1,7	.0088	
.717	.53439	760	.60046	753	.99131	1,7	.0088	
.718	.54199	761	.60800	754	.99132	1,7	.0088	
.719	.54960	762	.61555	755	.99134	1,7	.0087	
2.720	7.55722	762	7.62310	756	0.99136	1,7	1.0087	0,2
.721	.56485	763	.63066	756	.99138	1,7	.0087	
.722	.57249	764	.63823	757	.99139	1,7	.0087	
.723	.58013	765	.64580	758	.99141	1,7	.0087	
.724	.58778	765	.65339	759	.99143	1,7	.0086	
2.725	7.59543	766	7.66098	760	0.99144	1,7	1.0086	0,2
.726	.60310	767	.66858	760	.99146	1,7	.0086	
.727	.61077	768	.67619	761	.99148	1,7	.0086	
.728	.61845	768	.68380	762	.99150	1,7	.0086	
.729	.62614	769	.69142	763	.99151	1,7	.0086	
2.730	7.63383	770	7.69905	763	0.99153	1,7	1.0085	0,2
.731	.64154	771	.70669	764	.99155	1,7	.0085	
.732	.64925	771	.71434	765	.99156	1,7	.0085	
.733	.65697	772	.72199	766	.99158	1,7	.0085	
.734	.66469	773	.72965	766	.99160	1,7	.0085	
2.735	7.67242	774	7.73732	767	0.99161	1,7	1.0085	0,2
.736	.68017	774	.74500	768	.99163	1,7	.0084	
.737	.68791	775	.75268	769	.99165	1,7	.0084	
.738	.69567	776	.76037	770	.99166	1,7	.0084	
.739	.70344	777	.76807	770	.99168	1,7	.0084	
2.740	7.71121	778	7.77578	771	0.99170	1,7	1.0084	0,2
.741	.71899	778	.78349	772	.99171	1,7	.0084	
.742	.72677	779	.79122	773	.99173	1,6	.0083	
.743	.73457	780	.79895	773	.99175	1,6	.0083	
.744	.74237	781	.80668	774	.99176	1,6	.0083	
2.745	7.75018	781	7.81443	775	0.99178	1,6	1.0083	0,2
.746	.75800	782	.82219	776	.99179	1,6	.0083	
.747	.76583	783	.82995	777	.99181	1,6	.0083	
.748	.77366	784	.83772	777	.99183	1,6	.0082	
.749	.78150	785	.84549	778	.99184	1,6	.0082	
2.750	7.78935	785	7.85328	779	0.99186	1,6	1.0082	0,2
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.750	7.78935	785	7.85328	779	0.99186	1,6	1.0082	0,2
.751	.79721	786	.86107	780	.99188	1,6	.0082	
.752	.80507	787	.86887	781	.99189	1,6	.0082	
.753	.81295	788	.87668	781	.99191	1,6	.0082	
.754	.82083	788	.88450	782	.99192	1,6	.0081	
2.755	7.82872	789	7.89232	783	0.99194	1,6	1.0081	0,2
.756	.83661	790	.90016	784	.99196	1,6	.0081	
.757	.84452	791	.90800	784	.99197	1,6	.0081	
.758	.85243	792	.91585	785	.99199	1,6	.0081	
.759	.86035	792	.92370	786	.99200	1,6	.0081	
2.760	7.86828	793	7.93157	787	0.99202	1,6	1.0080	0,2
.761	.87621	794	.93944	788	.99204	1,6	.0080	
.762	.88415	795	.94732	788	.99205	1,6	.0080	
.763	.89211	796	.95521	789	.99207	1,6	.0080	
.764	.90006	796	.96310	790	.99208	1,6	.0080	
2.765	7.90803	797	7.97101	791	0.99210	1,6	1.0080	0,2
.766	.91601	798	.97892	792	.99212	1,6	.0079	
.767	.92399	799	.98684	792	.99213	1,6	.0079	
.768	.93198	799	.99477	793	.99215	1,6	.0079	
.769	.93998	800	8.00270	794	.99216	1,6	.0079	
2.770	7.94799	801	8.01065	795	0.99218	1,6	1.0079	0,2
.771	.95600	802	.01860	796	.99219	1,6	.0079	
.772	.96402	803	.02656	796	.99221	1,6	.0079	
.773	.97205	803	.03453	797	.99222	1,5	.0078	
.774	.98009	804	.04250	798	.99224	1,5	.0078	
2.775	7.98814	805	8.05049	799	0.99226	1,5	1.0078	0,2
.776	.99619	806	.05848	800	.99227	1,5	.0078	
.777	8.00426	807	.06648	800	.99229	1,5	.0078	
.778	.01233	807	.07449	801	.99230	1,5	.0078	
.779	.02040	808	.08251	802	.99232	1,5	.0077	
2.780	8.02849	809	8.09053	803	0.99233	1,5	1.0077	0,2
.781	.03659	810	.09856	804	.99235	1,5	.0077	
.782	.04469	811	.10660	804	.99236	1,5	.0077	
.783	.05280	811	.11465	805	.99238	1,5	.0077	
.784	.06092	812	.12271	806	.99239	1,5	.0077	
2.785	8.06904	813	8.13077	807	0.99241	1,5	1.0077	0,2
.786	.07718	814	.13885	808	.99242	1,5	.0076	
.787	.08532	815	.14693	809	.99244	1,5	.0076	
.788	.09347	816	.15502	809	.99245	1,5	.0076	
.789	.10163	816	.16311	810	.99247	1,5	.0076	
2.790	8.10980	817	8.17122	811	0.99248	1,5	1.0076	0,2
.791	.11797	818	.17933	812	.99250	1,5	.0076	
.792	.12616	819	.18746	813	.99251	1,5	.0075	
.793	.13435	820	.19559	813	.99253	1,5	.0075	
.794	.14255	820	.20373	814	.99254	1,5	.0075	
2.795	8.15076	821	8.21187	815	0.99256	1,5	1.0075	0,2
.796	.15897	822	.22003	816	.99257	1,5	.0075	0,2
.797	.16720	823	.22819	817	.99259	1,5	.0075	0,2
.798	.17543	824	.23636	818	.99260	1,5	.0075	0,2
.799	.18367	824	.24454	818	.99262	1,5	.0074	0,1
2.800	8.19192	825	8.25273	819	0.99263	1,5	1.0074	0,1
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
2.800	8.19192	825	8.25273	819	0.99263	1,5	1.0074	0,1
.801	.20018	826	.26092	820	.99265	1,5	.0074	
.802	.20844	827	.26913	821	.99266	1,5	.0074	
.803	.21671	828	.27734	822	.99268	1,5	.0074	
.804	.22499	829	.28556	822	.99269	1,5	.0074	
2.805	8.23328	829	8.29379	823	0.99270	1,5	1.0073	0,1
.806	.24158	830	.30203	824	.99272	1,5	.0073	
.807	.24989	831	.31027	825	.99273	1,4	.0073	
.808	.25820	832	.31853	826	.99275	1,4	.0073	
.809	.26653	833	.32679	827	.99276	1,4	.0073	
2.810	8.27486	834	8.33506	827	0.99278	1,4	1.0073	0,1
.811	.28320	834	.34334	828	.99279	1,4	.0073	
.812	.29154	835	.35163	829	.99281	1,4	.0072	
.813	.29990	836	.35992	830	.99282	1,4	.0072	
.814	.30826	837	.36823	831	.99283	1,4	.0072	
2.815	8.31664	838	8.37654	832	0.99285	1,4	1.0072	0,1
.816	.32502	838	.38486	833	.99286	1,4	.0072	
.817	.33341	839	.39319	833	.99288	1,4	.0072	
.818	.34180	840	.40153	834	.99289	1,4	.0072	
.819	.35021	841	.40987	835	.99291	1,4	.0071	
2.820	8.35862	842	8.41823	836	0.99292	1,4	1.0071	0,1
.821	.36704	843	.42659	837	.99293	1,4	.0071	
.822	.37548	843	.43496	838	.99295	1,4	.0071	
.823	.38391	844	.44334	838	.99296	1,4	.0071	
.824	.39236	845	.45173	839	.99298	1,4	.0071	
2.825	8.40082	846	8.46013	840	0.99299	1,4	1.0071	0,1
.826	.40928	847	.46853	841	.99300	1,4	.0070	
.827	.41776	848	.47695	842	.99302	1,4	.0070	
.828	.42624	849	.48537	843	.99303	1,4	.0070	
.829	.43473	849	.49380	843	.99305	1,4	.0070	
2.830	8.44322	850	8.50224	844	0.99306	1,4	1.0070	0,1
.831	.45173	851	.51068	845	.99307	1,4	.0070	
.832	.46025	852	.51914	846	.99309	1,4	.0070	
.833	.46877	853	.52760	847	.99310	1,4	.0069	
.834	.47730	854	.53608	848	.99311	1,4	.0069	
2.835	8.48584	854	8.54456	849	0.99313	1,4	1.0069	0,1
.836	.49439	855	.55305	849	.99314	1,4	.0069	
.837	.50295	856	.56155	850	.99316	1,4	.0069	
.838	.51151	857	.57006	851	.99317	1,4	.0069	
.839	.52009	858	.57857	852	.99318	1,4	.0069	
2.840	8.52867	859	8.58710	853	0.99320	1,4	1.0069	0,1
.841	.53726	860	.59563	854	.99321	1,4	.0068	
.842	.54586	860	.60417	855	.99322	1,4	.0068	
.843	.55447	861	.61272	855	.99324	1,3	.0068	
.844	.56309	862	.62128	856	.99325	1,3	.0068	
2.845	8.57171	863	8.62985	857	0.99326	1,3	1.0068	0,1
.846	.58035	864	.63842	858	.99328	1,3	.0068	
.847	.58899	865	.64701	859	.99329	1,3	.0068	
.848	.59764	866	.65560	860	.99330	1,3	.0067	
.849	.60630	866	.66420	861	.99332	1,3	.0067	
2.850	8.61497	867	8.67281	861	0.99333	1,3	1.0067	0,1
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.850	8.61497	867	8.67281	861	0.99333	1,3	1.0067	0,1
.851	.62365	868	.68143	862	.99334	1,3	.0067	
.852	.63233	869	.69006	863	.99336	1,3	.0067	
.853	.64103	870	.69870	864	.99337	1,3	.0067	
.854	.64973	871	.70734	865	.99338	1,3	.0067	
2.855	8.65844	872	8.71600	866	0.99340	1,3	1.0066	0,1
.856	.66716	872	.72466	867	.99341	1,3	.0066	
.857	.67589	873	.73333	868	.99342	1,3	.0066	
.858	.68463	874	.74201	868	.99344	1,3	.0066	
.859	.69337	875	.75070	869	.99345	1,3	.0066	
2.860	8.70213	876	8.75940	870	0.99346	1,3	1.0066	0,1
.861	.71089	877	.76810	871	.99348	1,3	.0066	
.862	.71967	878	.77682	872	.99349	1,3	.0066	
.863	.72845	879	.78554	873	.99350	1,3	.0065	
.864	.73724	879	.79428	874	.99351	1,3	.0065	
2.865	8.74604	880	8.80302	875	0.99353	1,3	1.0065	0,1
.866	.75484	881	.81177	875	.99354	1,3	.0065	
.867	.76366	882	.82053	876	.99355	1,3	.0065	
.868	.77248	883	.82930	877	.99357	1,3	.0065	
.869	.78132	884	.83807	878	.99358	1,3	.0065	
2.870	8.79016	885	8.84686	879	0.99359	1,3	1.0065	0,1
.871	.79901	886	.85565	880	.99360	1,3	.0064	
.872	.80787	886	.86446	881	.99362	1,3	.0064	
.873	.81674	887	.87327	882	.99363	1,3	.0064	
.874	.82562	888	.88209	883	.99364	1,3	.0064	
2.875	8.83450	889	8.89092	883	0.99365	1,3	1.0064	0,1
.876	.84340	890	.89976	884	.99367	1,3	.0064	
.877	.85230	891	.90861	885	.99368	1,3	.0064	
.878	.86122	892	.91746	886	.99369	1,3	.0063	
.879	.87014	893	.92633	887	.99371	1,3	.0063	
2.880	8.87907	894	8.93520	888	0.99372	1,3	1.0063	0,1
.881	.88801	894	.94409	889	.99373	1,3	.0063	
.882	.89696	895	.95298	890	.99374	1,2	.0063	
.883	.90591	896	.96188	891	.99376	1,2	.0063	
.884	.91488	897	.97079	891	.99377	1,2	.0063	
2.885	8.92386	898	8.97971	892	0.99378	1,2	1.0063	0,1
.886	.93284	899	.98864	893	.99379	1,2	.0062	
.887	.94183	900	.99758	894	.99380	1,2	.0062	
.888	.95084	901	9.00652	895	.99382	1,2	.0062	
.889	.95985	902	.01548	896	.99383	1,2	.0062	
2.890	8.96887	902	9.02444	897	0.99384	1,2	1.0062	0,1
.891	.97790	903	.03342	898	.99385	1,2	.0062	
.892	.98693	904	.04240	899	.99387	1,2	.0062	
.893	.99598	905	.05139	900	.99388	1,2	.0062	
.894	9.00504	906	.06039	901	.99389	1,2	.0061	
2.895	9.01410	907	9.06940	901	0.99390	1,2	1.0061	0,1
.896	.02318	908	.07842	902	.99391	1,2	.0061	
.897	.03226	909	.08745	903	.99393	1,2	.0061	
.898	.04135	910	.09648	904	.99394	1,2	.0061	
.899	.05045	911	.10553	905	.99395	1,2	.0061	
2.900	9.05956	911	9.11458	906	0.99396	1,2	1.0061	0,1
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F_0'	cosh u	ω F_0'	tanh u	ω F_0'	coth u	ω F_0'
2.900	9.05956	911	9.11458	906	0.99396	1,2	1.0061	0,1
.901	.06868	912	.12365	907	.99398	1,2	.0061	
.902	.07781	913	.13272	908	.99399	1,2	.0060	
.903	.08695	914	.14180	909	.99400	1,2	.0060	
.904	.09609	915	.15090	910	.99401	1,2	.0060	
2.905	9.10525	916	9.16000	911	0.99402	1,2	1.0060	0,1
.906	.11441	917	.16911	911	.99403	1,2	.0060	
.907	.12359	918	.17823	912	.99405	1,2	.0060	
.908	.13277	919	.18735	913	.99406	1,2	.0060	
.909	.14196	920	.19649	914	.99407	1,2	.0060	
2.910	9.15116	921	9.20564	915	0.99408	1,2	1.0060	0,1
.911	.16037	921	.21479	916	.99409	1,2	.0059	
.912	.16959	922	.22396	917	.99411	1,2	.0059	
.913	.17882	923	.23313	918	.99412	1,2	.0059	
.914	.18806	924	.24232	919	.99413	1,2	.0059	
2.915	9.19730	925	9.25151	920	0.99414	1,2	1.0059	0,1
.916	.20656	926	.26071	921	.99415	1,2	.0059	
.917	.21583	927	.26992	922	.99416	1,2	.0059	
.918	.22510	928	.27914	923	.99418	1,2	.0059	
.919	.23438	929	.28837	923	.99419	1,2	.0058	
2.920	9.24368	930	9.29761	924	0.99420	1,2	1.0058	0,1
.921	.25298	931	.30686	925	.99421	1,2	.0058	
.922	.26229	932	.31612	926	.99422	1,2	.0058	
.923	.27161	933	.32538	927	.99423	1,1	.0058	
.924	.28094	933	.33466	928	.99425	1,1	.0058	
2.925	9.29028	934	9.34395	929	0.99426	1,1	1.0058	0,1
.926	.29963	935	.35324	930	.99427	1,1	.0058	
.927	.30899	936	.36254	931	.99428	1,1	.0058	
.928	.31835	937	.37186	932	.99429	1,1	.0057	
.929	.32773	938	.38118	933	.99430	1,1	.0057	
2.930	9.33712	939	9.39051	934	0.99531	1,1	1.0057	0,1
.931	.34651	940	.39986	935	.99433	1,1	.0057	
.932	.35592	941	.40921	936	.99434	1,1	.0057	
.933	.36533	942	.41857	937	.99435	1,1	.0057	
.934	.37475	943	.42794	937	.99436	1,1	.0057	
2.935	9.38419	944	9.43732	938	0.99437	1,1	1.0057	0,1
.936	.39363	945	.44671	939	.99438	1,1	.0057	
.937	.40308	946	.45610	940	.99439	1,1	.0056	
.938	.41254	947	.46551	941	.99440	1,1	.0056	
.939	.42201	947	.47493	942	.99441	1,1	.0056	
2.940	9.43149	948	9.48436	943	0.99443	1,1	1.0056	0,1
.941	.44098	949	.49379	944	.99444	1,1	.0056	
.942	.45048	950	.50324	945	.99445	1,1	.0056	
.943	.45999	951	.51269	946	.99446	1,1	.0056	
.944	.46950	952	.52216	947	.99447	1,1	.0056	
2.945	9.47903	953	9.53163	948	0.99448	1,1	1.0055	0,1
.946	.48857	954	.54112	949	.99449	1,1	.0055	
.947	.49811	955	.55061	950	.99450	1,1	.0055	
.948	.50767	956	.56011	951	.99451	1,1	.0055	
.949	.51723	957	.56962	952	.99453	1,1	.0055	
2.950	9.52681	958	9.57915	953	0.99454	1,1	1.0055	0,1
u	tan gd u	ω F_0'	sec gd u	ω F_0'	sin gd u	ω F_0'	csc gd u	ω F_0'

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
2.950	9.52681	958	9.57915	953	0.99454	1,1	1.0055	0,1
.951	.53639	959	.58868	954	.99455	1,1	.0055	
.952	.54598	960	.59822	955	.99456	1,1	.0055	
.953	.55559	961	.60777	956	.99457	1,1	.0055	
.954	.56520	962	.61733	957	.99458	1,1	.0055	
2.955	9.57482	963	9.62690	957	0.99459	1,1	1.0054	0,1
.956	.58445	964	.63648	958	.99460	1,1	.0054	
.957	.59410	965	.64607	959	.99461	1,1	.0054	
.958	.60375	966	.65567	960	.99462	1,1	.0054	
.959	.61341	967	.66528	961	.99463	1,1	.0054	
2.960	9.62308	967	9.67490	962	0.99464	1,1	1.0054	0,1
.961	.63276	968	.68452	963	.99465	1,1	.0054	
.962	.64245	969	.69416	964	.99467	1,1	.0054	
.963	.65214	970	.70381	965	.99468	1,1	.0054	
.964	.66185	971	.71347	966	.99469	1,1	.0053	
2.965	9.67157	972	9.72313	967	0.99470	1,1	1.0053	0,1
.966	.68130	973	.73281	968	.99471	1,1	.0053	
.967	.69104	974	.74249	969	.99472	1,1	.0053	
.968	.70078	975	.75219	970	.99473	1,1	.0053	
.969	.71054	976	.76190	971	.99474	1,0	.0053	
2.970	9.72031	977	9.77161	972	0.99475	1,0	1.0053	0,1
.971	.73008	978	.78134	973	.99476	1,0	.0053	
.972	.73987	979	.79107	974	.99477	1,0	.0053	
.973	.74967	980	.80082	975	.99478	1,0	.0052	
.974	.75947	981	.81057	976	.99479	1,0	.0052	
2.975	9.76929	982	9.82034	977	0.99480	1,0	1.0052	0,1
.976	.77911	983	.83011	978	.99481	1,0	.0052	
.977	.78895	984	.83989	979	.99482	1,0	.0052	
.978	.79879	985	.84969	980	.99483	1,0	.0052	
.979	.80865	986	.85949	981	.99484	1,0	.0052	
2.980	9.81851	987	9.86930	982	0.99485	1,0	1.0052	0,1
.981	.82839	988	.87913	983	.99486	1,0	.0052	
.982	.83827	989	.88896	984	.99487	1,0	.0052	
.983	.84816	990	.89880	985	.99488	1,0	.0051	
.984	.85807	991	.90866	986	.99489	1,0	.0051	
2.985	9.86798	992	9.91852	987	0.99490	1,0	1.0051	0,1
.986	.87790	993	.92839	988	.99491	1,0	.0051	
.987	.88784	994	.93828	989	.99492	1,0	.0051	
.988	.89778	995	.94817	990	.99493	1,0	.0051	
.989	.90773	996	.95807	991	.99495	1,0	.0051	
2.990	9.91770	997	9.96798	992	0.99496	1,0	1.0051	0,1
.991	.92767	998	.97791	993	.99497	1,0	.0051	
.992	.93765	999	.98784	994	.99498	1,0	.0051	
.993	.94765	1000	.99778	995	.99499	1,0	.0050	
.994	.95765	1001	10.00774	996	.99500	1,0	.0050	
2.995	9.96766	1002	10.01770	997	0.99501	1,0	1.0050	0,1
.996	.97768	1003	.02767	998	.99502	1,0	.0050	
.997	.98772	1004	.03765	999	.99503	1,0	.0050	
.998	.99776	1005	.04765	1000	.99504	1,0	.0050	
.999	10.00781	1006	.05765	1001	.99504	1,0	.0050	
3.000	10.01787	1007	10.06766	1002	0.99505	1,0	1.0050	0,1
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
3.00	10.0179	1007	10.0677	1002	0.99505	9,9	1.0050	1,0
.01	10.1191	1017	10.1683	1012	.99515	9,7	.0049	1,0
.02	10.2212	1027	10.2700	1022	.99525	9,5	.0048	1,0
.03	10.3245	1037	10.3728	1032	.99534	9,3	.0047	0,9
.04	10.4287	1048	10.4765	1043	.99543	9,1	.0046	0,9
3.05	10.5340	1058	10.5814	1053	0.99552	8,9	1.0045	0,9
.06	10.6403	1069	10.6872	1064	.99561	8,8	.0044	0,9
.07	10.7477	1079	10.7942	1075	.99570	8,6	.0043	0,9
.08	10.8562	1090	10.9022	1086	.99578	8,4	.0042	0,8
.09	10.9658	1101	11.0113	1097	.99587	8,2	.0041	0,8
3.10	11.0765	1112	11.1215	1108	0.99595	8,1	1.0041	0,8
.11	11.1882	1123	11.2328	1119	.99603	7,9	.0040	0,8
.12	11.3011	1135	11.3453	1130	.99611	7,8	.0039	0,8
.13	11.4151	1146	11.4588	1142	.99618	7,6	.0038	0,8
.14	11.5303	1157	11.5736	1153	.99626	7,5	.0038	0,8
3.15	11.6466	1169	11.6895	1165	0.99633	7,3	1.0037	0,7
.16	11.7641	1181	11.8065	1176	.99641	7,2	.0036	0,7
.17	11.8827	1192	11.9247	1188	.99648	7,0	.0035	0,7
.18	12.0026	1204	12.0442	1200	.99655	6,9	.0035	0,7
.19	12.1236	1216	12.1648	1212	.99662	6,8	.0034	0,7
3.20	12.2459	1229	12.2866	1225	0.99668	6,6	1.0033	0,7
.21	12.3694	1241	12.4097	1237	.99675	6,5	.0033	0,7
.22	12.4941	1253	12.5340	1249	.99681	6,4	.0032	0,6
.23	12.6200	1266	12.6596	1262	.99688	6,2	.0031	0,6
.24	12.7473	1279	12.7864	1275	.99694	6,1	.0031	0,6
3.25	12.8758	1291	12.9146	1288	0.99700	6,0	1.0030	0,6
.26	13.0056	1304	13.0440	1301	.99706	5,9	.0030	0,6
.27	13.1367	1317	13.1747	1314	.99712	5,8	.0029	0,6
.28	13.2691	1331	13.3067	1327	.99717	5,6	.0028	0,6
.29	13.4028	1344	13.4401	1340	.99723	5,5	.0028	0,6
3.30	13.5379	1357	13.5748	1354	0.99728	5,4	1.0027	0,5
.31	13.6743	1371	13.7108	1367	.99734	5,3	.0027	0,5
.32	13.8121	1385	13.8483	1381	.99739	5,2	.0026	0,5
.33	13.9513	1399	13.9871	1395	.99744	5,1	.0026	0,5
.34	14.0918	1413	14.1273	1409	.99749	5,0	.0025	0,5
3.35	14.2338	1427	14.2689	1423	0.99754	4,9	1.0025	0,5
.36	14.3772	1441	14.4120	1438	.99759	4,8	.0024	0,5
.37	14.5221	1456	14.5565	1452	.99764	4,7	.0024	0,5
.38	14.6684	1470	14.7024	1467	.99768	4,6	.0023	0,5
.39	14.8161	1485	14.8498	1482	.99773	4,5	.0023	0,5
3.40	14.9654	1500	14.9987	1497	0.99777	4,4	1.0022	0,4
.41	15.1161	1515	15.1491	1512	.99782	4,4	.0022	0,4
.42	15.2684	1530	15.3011	1527	.99786	4,3	.0021	0,4
.43	15.4221	1545	15.4545	1542	.99790	4,2	.0021	0,4
.44	15.577[illegible]	1561	15.6095	1558	.99795	4,1	.0021	0,4
3.45	15.7343	1577	15.7661	1573	0.99799	4,0	1.0020	0,4
.46	15.8928	1592	15.9242	1589	.99803	3,9	.0020	0,4
.47	16.0528	1608	16.0839	1605	.99807	3,9	.0019	0,4
.48	16.2145	1625	16.2453	1621	.99810	3,8	.0019	0,4
.49	16.3777	1641	16.4082	1638	.99814	3,7	.0019	0,4
3.50	16.5426	1657	16.5728	1654	0.99818	3,6	1.0018	0,4
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega\ F_0'$	cosh u	$\omega\ F_0'$	tanh u	$\omega\ F_0'$	coth u	$\omega\ F_0'$
3.50	16.5426	1657	16.5728	1654	0.99818	3,6	1.0018	0,4
.51	16.7092	1674	16.7391	1671	.99821	3,6	.0018	0,4
.52	16.8774	1691	16.9070	1688	.99825	3,5	.0018	0,4
.53	17.0473	1708	17.0766	1705	.99828	3,4	.0017	0,3
.54	17.2190	1725	17.2480	1722	.99832	3,4	.0017	0,3
3.55	17.3923	1742	17.4210	1739	0.99835	3,3	1.0017	0,3
.56	17.5674	1760	17.5958	1757	.99838	3,2	.0016	0,3
.57	17.7442	1777	17.7724	1774	.99842	3,2	.0016	0,3
.58	17.9228	1795	17.9507	1792	.99845	3,1	.0016	0,3
.59	18.1032	1813	18.1308	1810	.99848	3,0	.0015	0,3
3.60	18.2855	1831	18.3128	1829	0.99851	3,0	1.0015	0,3
.61	18.4695	1850	18.4966	1847	.99854	2,9	.0015	0,3
.62	18.6554	1868	18.6822	1866	.99857	2,9	.0014	0,3
.63	18.8432	1887	18.8697	1884	.99859	2,8	.0014	0,3
.64	19.0328	1906	19.0590	1903	.99862	2,8	.0014	0,3
3.65	19.2243	1925	19.2503	1922	0.99865	2,7	1.0014	0,3
.66	19.4178	1944	19.4435	1942	.99868	2,6	.0013	0,3
.67	19.6132	1964	19.6387	1961	.99870	2,6	.0013	0,3
.68	19.8106	1984	19.8358	1981	.99873	2,5	.0013	0,3
.69	20.0099	2003	20.0349	2001	.99875	2,5	.0012	0,2
3.70	20.2113	2024	20.2360	2021	0.99878	2,4	1.0012	0,2
.71	20.4147	2044	20.4391	2041	.99880	2,4	.0012	0,2
.72	20.6201	2064	20.6443	2062	.99883	2,3	.0012	0,2
.73	20.8276	2085	20.8516	2083	.99885	2,3	.0012	0,2
.74	21.0371	2106	21.0609	2104	.99887	2,3	.0011	0,2
3.75	21.2488	2127	21.2723	2125	0.99889	2,2	1.0011	0,2
.76	21.4626	2149	21.4859	2146	.99892	2,2	.0011	0,2
.77	21.6785	2170	21.7016	2168	.99894	2,1	.0011	0,2
.78	21.8966	2192	21.9194	2190	.99896	2,1	.0010	0,2
.79	22.1169	2214	22.1395	2212	.99898	2,0	.0010	0,2
3.80	22.3394	2236	22.3618	2234	0.99900	2,0	1.0010	0,2
.81	22.5641	2259	22.5863	2256	.99902	2,0	.0010	0,2
.82	22.7911	2281	22.8131	2279	.99904	1,9	.0010	0,2
.83	23.0204	2304	23.0421	2302	.99906	1,9	.0009	0,2
.84	23.2520	2327	23.2735	2325	.99908	1,8	.0009	0,2
3.85	23.4859	2351	23.5072	2349	0.99909	1,8	1.0009	0,2
.86	23.7221	2374	23.7432	2372	.99911	1,8	.0009	0,2
.87	23.9608	2398	23.9816	2396	.99913	1,7	.0009	0,2
.88	24.2018	2422	24.2224	2420	.99915	1,7	.0009	0,2
.89	24.4452	2447	24.4657	2445	.99916	1,7	.0008	0,2
3.90	24.6911	2471	24.7113	2469	0.99918	1,6	1.0008	0,2
.91	24.9395	2496	24.9595	2494	.99920	1,6	.0008	0,2
.92	25.1903	2521	25.2101	2519	.99921	1,6	.0008	0,2
.93	25.4437	2546	25.4633	2544	.99923	1,5	.0008	0,2
.94	25.6996	2572	25.7190	2570	.99924	1,5	.0008	0,2
3.95	25.9581	2598	25.9773	2596	0.99926	1,5	1.0007	0,1
.96	26.2191	2624	26.2382	2622	.99927	1,5	.0007	0,1
.97	26.4828	2650	26.5017	2648	.99929	1,4	.0007	0,1
.98	26.7492	2677	26.7679	2675	.99930	1,4	.0007	0,1
.99	27.0182	2704	27.0367	2702	.99932	1,4	.0007	0,1
4.00	27.2899	2731	27.3082	2729	0.99933	1,3	1.0007	0,1
u	tan gd u	$\omega\ F_0'$	sec gd u	$\omega\ F_0'$	sin gd u	$\omega\ F_0'$	csc gd u	$\omega\ F_0'$

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
4.00	27.2899	2731	27.3082	2729	0.99933	1,3	1.0007	0,1
.01	27.5644	2758	27.5825	2756	.99934	1,3	.0007	
.02	27.8416	2786	27.8595	2784	.99936	1,3	.0006	
.03	28.1216	2814	28.1393	2812	.99937	1,3	.0006	
.04	28.4044	2842	28.4220	2840	.99938	1,2	.0006	
4.05	28.6900	2871	28.7074	2869	0.99939	1,2	1.0006	0,1
.06	28.9785	2900	28.9958	2898	.99941	1,2	.0006	
.07	29.2699	2929	29.2870	2927	.99942	1,2	.0006	
.08	29.5643	2958	29.5812	2956	.99943	1,1	.0006	
.09	29.8616	2988	29.8783	2986	.99944	1,1	.0006	
4.10	30.1619	3018	30.1784	3016	0.99945	1,1	1.0005	0,1
.11	30.4652	3048	30.4816	3047	.99946	1,1	.0005	
.12	30.7715	3079	30.7877	3077	.99947	1,1	.0005	
.13	31.0809	3110	31.0970	3108	.99948	1,0	.0005	
.14	31.3934	3141	31.4094	3139	.99949	1,0	.0005	
4.15	31.7091	3172	31.7249	3171	0.99950	1,0	1.0005	0,1
.16	32.0280	3204	32.0436	3203	.99951	1,0	.0005	
.17	32.3500	3237	32.3655	3235	.99952	1,0	.0005	
.18	32.6753	3269	32.6906	3268	.99953	0,9	.0005	
.19	33.0038	3302	33.0190	3300	.99954	0,9	.0005	
4.20	33.3357	3335	33.3507	3334	0.99955	0,9	1.0004	0,1
.21	33.6708	3369	33.6857	3367	.99956	0,9	.0004	
.22	34.0094	3402	34.0241	3401	.99957	0,9	.0004	
.23	34.3513	3437	34.3659	3435	.99958	0,8	.0004	
.24	34.6967	3471	34.7111	3470	.99958	0,8	.0004	
4.25	35.0456	3506	35.0598	3505	0.99959	0,8	1.0004	0,1
.26	35.3979	3541	35.4121	3540	.99960	0,8	.0004	
.27	35.7538	3577	35.7678	3575	.99961	0,8	.0004	
.28	36.1133	3613	36.1271	3611	.99962	0,8	.0004	
.29	36.4764	3649	36.4901	3648	.99962	0,8	.0004	
4.30	36.8431	3686	36.8567	3684	0.99963	0,7	1.0004	0,1
.31	37.2135	3723	37.2270	3721	.99964	0,7	.0004	
.32	37.5877	3760	37.6010	3759	.99965	0,7	.0004	
.33	37.9656	3798	37.9787	3797	.99965	0,7	.0003	
.34	38.3473	3836	38.3603	3835	.99966	0,7	.0003	
4.35	38.7328	3875	38.7457	3873	0.99967	0,7	1.0003	0,1
.36	39.1222	3913	39.1350	3912	.99967	0,7	.0003	
.37	39.5155	3953	39.5281	3952	.99968	0,6	.0003	
.38	39.9128	3993	39.9253	3991	.99969	0,6	.0003	
.39	40.3140	4033	40.3264	4031	.99969	0,6	.0003	
4.40	40.7193	4073	40.7316	4072	0.99970	0,6	1.0003	0,1
.41	41.1287	4114	41.1408	4113	.99970	0,6	.0003	
.42	41.5421	4155	41.5542	4154	.99971	0,6	.0003	
.43	41.9598	4197	41.9717	4196	.99972	0,6	.0003	
.44	42.3816	4239	42.3934	4238	.99972	0,6	.0003	
4.45	42.8076	4282	42.8193	4281	0.99973	0,5	1.0003	0,1
.46	43.2380	4325	43.2495	4324	.99973	0,5	.0003	
.47	43.6726	4368	43.6841	4367	.99974	0,5	.0003	
.48	44.1117	4412	44.1230	4411	.99974	0,5	.0003	
.49	44.5551	4457	44.5663	4456	.99975	0,5	.0003	
4.50	45.0030	4501	45.0141	4500	0.99975	0,5	1.0002	0,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
4.50	45.0030	4501	45.0141	4500	0.99975	0,5	1.0002	0,0
.51	45.4554	4547	45.4664	4546	.99976	0,5	.0002	
.52	45.9124	4592	45.9232	4591	.99976	0,5	.0002	
.53	46.3739	4638	46.3847	4637	.99977	0,5	.0002	
.54	46.8401	4685	46.8507	4684	.99977	0,5	.0002	
4.55	47.3169	4732	47.3215	4731	0.99978	0,4	1.0002	0,0
.56	47.7865	4780	47.7970	4779	.99978	0,4	.0002	
.57	48.2669	4828	48.2772	4827	.99979	0,4	.0002	
.58	48.7521	4876	48.7623	4875	.99979	0,4	.0002	
.59	49.2421	4925	49.2523	4924	.99979	0,4	.0002	
4.60	49.7371	4975	49.7472	4974	0.99980	0,4	1.0002	0,0
.61	50.2371	5025	50.2471	5024	.99980	0,4	.0002	
.62	50.7421	5075	50.7519	5074	.99981	0,4	.0002	
.63	51.2522	5126	51.2619	5125	.99981	0,4	.0002	
.64	51.7673	5178	51.7770	5177	.99981	0,4	.0002	
4.65	52.2877	5230	52.2973	5229	0.99982	0,4	1.0002	0,0
.66	52.8133	5282	52.8228	5281	.99982	0,4	.0002	
.67	53.3442	5335	53.3536	5334	.99982	0,4	.0002	
.68	53.8804	5389	53.8897	5388	.99983	0,3	.0002	
.69	54.4220	5443	54.4312	5442	.99983	0,3	.0002	
4.70	54.9690	5498	54.9781	5497	0.99983	0,3	1.0002	0,0
.71	55.5216	5553	55.5306	5552	.99984	0,3	.0002	
.72	56.0797	5609	56.0886	5608	.99984	0,3	.0002	
.73	56.6434	5665	56.6522	5664	.99984	0,3	.0002	
.74	57.2127	5722	57.2215	5721	.99985	0,3	.0002	
4.75	57.7878	5780	57.7965	5779	0.99985	0,3	1.0001	0,0
.76	58.3687	5838	58.3772	5837	.99985	0,3	.0001	
.77	58.9554	5896	58.9639	5896	.99986	0,3	.0001	
.78	59.5480	5956	59.5564	5955	.99986	0,3	.0001	
.79	60.1465	6015	60.1548	6015	.99986	0,3	.0001	
4.80	60.7511	6076	60.7593	6075	0.99986	0,3	1.0001	0,0
.81	61.3617	6137	61.3699	6136	.99987	0,3	.0001	
.82	61.9785	6199	61.9866	6198	.99987	0,3	.0001	
.83	62.6015	6261	62.6095	6260	.99987	0,3	.0001	
.84	63.2307	6324	63.2386	6323	.99987	0,3	.0001	
4.85	63.8663	6387	63.8741	6387	0.99988	0,2	1.0001	0,0
.86	64.5082	6452	64.5160	6451	.99988	0,2	.0001	
.87	65.1566	6516	65.1643	6516	.99988	0,2	.0001	
.88	65.8115	6582	65.8191	6581	.99988	0,2	.0001	
.89	66.4730	6648	66.4805	6647	.99989	0,2	.0001	
4.90	67.1412	6715	67.1486	6714	0.99989	0,2	1.0001	0,0
.91	67.8160	6782	67.8234	6782	.99989	0,2	.0001	
.92	68.4977	6850	68.5050	6850	.99989	0,2	.0001	
.93	69.1861	6919	69.1934	6919	.99990	0,2	.0001	
.94	69.8815	6989	69.8887	6988	.99990	0,2	.0001	
4.95	70.5839	7059	70.5910	7058	0.99990	0,2	1.0001	0,0
.96	71.2934	7130	71.3004	7129	.99990	0,2	.0001	
.97	72.0100	7202	72.0169	7201	.99990	0,2	.0001	
.98	72.7338	7274	72.7406	7273	.99991	0,2	.0001	
.99	73.4648	7347	73.4716	7346	.99991	0,2	.0001	
5.00	74.2032	7421	74.2099	7420	0.99991	0,2	1.0001	0,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	ω F₀′	cosh u	ω F₀′	tanh u	ω F₀′	coth u	ω F₀′
5.00	74.2032	7421	74.2099	7420	0.99991	0,2	1.0001	0,0
.01	74.9490	7496	74.9557	7495	.99991	0,2	.0001	
.02	75.7023	7571	75.7090	7570	.99991	0,2	.0001	
.03	76.4632	7647	76.4698	7646	.99991	0,2	.0001	
.04	77.2318	7724	77.2382	7723	.99992	0,2	.0001	
5.05	78.0080	7801	78.0144	7801	0.99992	0,2	1.0001	0,0
.06	78.7921	7880	78.7984	7879	.99992	0,2	.0001	
.07	79.5840	7959	79.5903	7958	.99992	0,2	.0001	
.08	80.3839	8039	80.3901	8038	.99992	0,2	.0001	
.09	81.1918	8120	81.1980	8119	.99992	0,2	.0001	
5.10	82.0079	8201	82.0140	8201	0.99993	0,1	1.0001	0,0
.11	82.8322	8284	82.8382	8283	.99993	0,1	.0001	
.12	83.6647	8367	83.6707	8366	.99993	0,1	.0001	
.13	84.5056	8451	84.5115	8451	.99993	0,1	.0001	
.14	85.3550	8536	85.3608	8535	.99993	0,1	.0001	
5.15	86.2128	8622	86.2186	8621	0.99993	0,1	1.0001	0,0
.16	87.0794	8709	87.0851	8708	.99993	0,1	.0001	
.17	87.9546	8796	87.9603	8795	.99994	0,1	.0001	
.18	88.8386	8884	88.8442	8884	.99994	0,1	.0001	
.19	89.7315	8974	89.7371	8973	.99994	0,1	.0001	
5.20	90.6334	9064	90.6389	9063	0.99994	0,1	1.0001	0,0
.21	91.5443	9155	91.5498	9154	.99994	0,1	.0001	
.22	92.4644	9247	92.4698	9246	.99994	0,1	.0001	
.23	93.3937	9340	93.3991	9339	.99994	0,1	.0001	
.24	94.3324	9434	94.3377	9433	.99994	0,1	.0001	
5.25	95.2805	9529	95.2858	9528	0.99994	0,1	1.0001	0,0
.26	96.2381	9624	96.2433	9624	.99995	0,1	.0001	
.27	97.2054	9721	97.2106	9721	.99995	0,1	.0001	
.28	98.1824	9819	98.1875	9818	.99995	0,1	.0001	
.29	99.1692	9917	99.1742	9917	.99995	0,1	.0001	
5.30	100.1659	10017	100.1709	10017	0.99995	0,1	1.0000	0,0
.31	101.1726	10118	101.1776	10117	.99995	0,1	.0000	
.32	102.1895	10219	102.1944	10219	.99995	0,1	.0000	
.33	103.2166	10322	103.2214	10322	.99995	0,1	.0000	
.34	104.2540	10426	104.2588	10425	.99995	0,1	.0000	
5.35	105.3018	10531	105.3065	10530	0.99995	0,1	1.0000	0,0
.36	106.3601	10636	106.3648	10636	.99996	0,1	.0000	
.37	107.4291	10743	107.4338	10743	.99996	0,1	.0000	
.38	108.5088	10851	108.5134	10851	.99996	0,1	.0000	
.39	109.5994	10960	109.6040	10960	.99996	0,1	.0000	
5.40	110.7009	11071	110.7055	11070	0.99996	0,1	1.0000	0,0
.41	111.8136	11182	111.8180	11181	.99996	0,1	.0000	
.42	112.9375	11294	112.9418	11294	.99996	0,1	.0000	
.43	114.0724	11408	114.0768	11407	.99996	0,1	.0000	
.44	115.2189	11522	115.2233	11522	.99996	0,1	.0000	
5.45	116.3769	11638	116.3812	11638	0.99996	0,1	1.0000	0,0
.46	117.5466	11755	117.5508	11755	.99996	0,1	.0000	
.47	118.7280	11873	118.7322	11873	.99996	0,1	.0000	
.48	119.9213	11993	119.9254	11992	.99997	0,1	.0000	
.49	121.1265	12113	121.1307	12113	.99997	0,1	.0000	
5.50	122.3439	12235	122.3480	12234	0.99997	0,1	1.0000	0,0
u	tan gd u	ω F₀′	sec gd u	ω F₀′	sin gd u	ω F₀′	csc gd u	ω F₀′

u	sinh u	$\omega F_0'$	cosh u	$\omega F_0'$	tanh u	$\omega F_0'$	coth u	$\omega F_0'$
5.50	122.3439	12235	122.3480	12234	0.99997	0,1	1.0000	0,0
.51	123.5735	12358	123.5776	12357	.99997	0,1	.0000	
.52	124.8155	12482	124.8195	12482	.99997	0,1	.0000	
.53	126.0700	12607	126.0739	12607	.99997	0,1	.0000	
.54	127.3370	12734	127.3410	12734	.99997	0,1	.0000	
5.55	128.6168	12862	128.6207	12862	0.99997	0,1	1.0000	0,0
.56	129.9095	12991	129.9133	12991	.99997	0,1	.0000	
.57	131.2151	13122	131.2190	13122	.99997	0,1	.0000	
.58	132.5339	13254	132.5377	13253	.99997	0,1	.0000	
.59	133.8659	13387	133.8697	13387	.99997	0,1	.0000	
5.60	135.2114	13522	135.2150	13521	0.99997	0,1	1.0000	0,0
.61	136.5703	13657	136.5739	13657	.99997	0,1	.0000	
.62	137.9429	13795	137.9465	13794	.99997	0,1	.0000	
.63	139.3293	13933	139.3329	13933	.99997	0,1	.0000	
.64	140.7296	14073	140.7331	14073	.99997	0,1	.0000	
5.65	142.1440	14215	142.1475	14214	0.99998	0,0	1.0000	0,0
.66	143.5726	14358	143.5761	14357	.99998	0,0	.0000	
.67	145.0155	14502	145.0190	14502	.99998	0,0	.0000	
.68	146.4730	14648	146.4764	14647	.99998	0,0	.0000	
.69	147.9451	14795	147.9485	14795	.99998	0,0	.0000	
5.70	149.4320	14944	149.4354	14943	0.99998	0,0	1.0000	0,0
.71	150.9339	15094	150.9372	15093	.99998	0,0	.0000	
.72	152.4508	15245	152.4541	15245	.99998	0,0	.0000	
.73	153.9830	15399	153.9863	15398	.99998	0,0	.0000	
.74	155.5306	15553	155.5338	15553	.99998	0,0	.0000	
5.75	157.0938	15710	157.0969	15709	0.99998	0,0	1.0000	0,0
.76	158.6726	15868	158.6757	15867	.99998	0,0	.0000	
.77	160.2673	16027	160.2704	16027	.99998	0,0	.0000	
.78	161.8781	16188	161.8811	16188	.99998	0,0	.0000	
.79	163.5050	16351	163.5080	16350	.99998	0,0	.0000	
5.80	165.1483	16515	165.1513	16515	0.99998	0,0	1.0000	0,0
.81	166.8081	16681	166.8111	16681	.99998	0,0	.0000	
.82	168.4845	16849	168.4875	16848	.99998	0,0	.0000	
.83	170.1779	17018	170.1808	17018	.99998	0,0	.0000	
.84	171.8882	17189	171.8911	17189	.99998	0,0	.0000	
5.85	173.6158	17362	173.6186	17362	0.99998	0,0	1.0000	0,0
.86	175.3606	17536	175.3635	17536	.99998	0,0	.0000	
.87	177.1231	17713	177.1259	17712	.99998	0,0	.0000	
.88	178.9032	17891	178.9060	17890	.99998	0,0	.0000	
.89	180.7013	18070	180.7040	18070	.99998	0,0	.0000	
5.90	182.5174	18252	182.5201	18252	0.99998	0,0	1.0000	0,0
.91	184.3517	18435	184.3544	18435	.99999	0,0	.0000	
.92	186.2045	18621	186.2072	18620	.99999	0,0	.0000	
.93	188.0759	18808	188.0786	18808	.99999	0,0	.0000	
.94	189.9661	18997	189.9688	18997	.99999	0,0	.0000	
5.95	191.8754	19188	191.8780	19188	0.99999	0,0	1.0000	0,0
.96	193.8038	19381	193.8064	19380	.99999	0,0	.0000	
.97	195.7516	19575	195.7541	19575	.99999	0,0	.0000	
.98	197.7189	19772	197.7214	19772	.99999	0,0	.0000	
.99	199.7061	19971	199.7086	19971	.99999	0,0	.0000	
6.00	201.7132	20172	201.7156	20171	0.99999	0,0	1.0000	0,0
u	tan gd u	$\omega F_0'$	sec gd u	$\omega F_0'$	sin gd u	$\omega F_0'$	csc gd u	$\omega F_0'$

TABLE III

NATURAL AND LOGARITHMIC CIRCULAR FUNCTIONS

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
									° ′ ″
0.0000	0.00000	10,0	1.00000	0,0	−∞	+∞	0.00000	0,0	0 00 00.00
.0001	.00010		.00000		6.00000	43429,4	.00000		0 00 20.63
.0002	.00020		.00000		.30103	21714,7	.00000		0 00 41.25
.0003	.00030		.00000		.47712	14476,5	.00000		0 01 01.88
.0004	.00040		.00000		.60206	10857,4	.00000		0 01 22.51
0.0005	0.00050	10,0	1.00000	0,0	6.69897	8685,9	0.00000	0,0	0 01 43.13
.0006	.00060		.00000		.77815	7238,2	.00000		0 02 03.76
.0007	.00070		.00000		.84510	6204,2	.00000		0 02 24.39
.0008	.00080		.00000		.90309	5428,7	.00000		0 02 45.01
.0009	.00090		.00000		.95424	4825,5	.00000		0 03 05.64
0.0010	0.00100	10,0	1.00000	0,0	7.00000	4342,9	0.00000	0,0	0 03 26.26
.0011	.00110		.00000		.04139	3948,1	.00000		0 03 46.89
.0012	.00120		.00000		.07918	3619,1	.00000		0 04 07.52
.0013	.00130		.00000		.11394	3340,7	.00000		0 04 28.14
.0014	.00140		.00000		.14613	3102,1	.00000		0 04 48.77
0.0015	0.00150	10,0	1.00000	0,0	7.17609	2895,3	0.00000	0,0	0 05 09.40
.0016	.00160		.00000		.20412	2714,3	.00000		0 05 30.02
.0017	.00170		.00000		.23045	2554,7	.00000		0 05 50.65
.0018	.00180		.00000		.25527	2412,7	.00000		0 06 11.28
.0019	.00190		.00000		.27875	2285,8	.00000		0 06 31.90
0.0020	0.00200	10,0	1.00000	0,0	7.30103	2171,5	0.00000	0,0	0 06 52.53
.0021	.00210		.00000		.32222	2068,1	.00000		0 07 13.16
.0022	.00220		.00000		.34242	1974,1	.00000		0 07 33.78
.0023	.00230		.00000		.36173	1888,2	.00000		0 07 54.41
.0024	.00240		.00000		.38021	1809,6	.00000		0 08 15.04
0.0025	0.00250	10,0	1.00000	0,0	7.39794	1737,2	0.00000	0,0	0 08 35.66
.0026	.00260		.00000		.41497	1670,4	.00000		0 08 56.29
.0027	.00270		.00000		.43136	1608,5	.00000		0 09 16.91
.0028	.00280		.00000		.44716	1551,0	.00000		0 09 37.54
.0029	.00290		.00000		.46240	1497,6	.00000		0 09 58.17
0.0030	0.00300	10,0	1.00000	0,0	7.47712	1447,6	0.00000	0,0	0 10 18.79
.0031	.00310		.00000		.49136	1400,9	.00000		0 10 39.42
.0032	.00320		0.99999		.50515	1357,2	.00000		0 11 00.05
.0033	.00330		.99999		.51851	1316,0	.00000		0 11 20.67
.0034	.00340		.99999		.53148	1277,3	.00000		0 11 41.30
0.0035	0.00350	10,0	0.99999	0,0	7.54407	1240,8	0.00000	0,0	0 12 01.93
.0036	.00360		.99999		.55630	1206,4	.00000		0 12 22.55
.0037	.00370		.99999		.56820	1173,8	.00000		0 12 43.18
.0038	.00380		.99999		.57978	1142,9	.00000		0 13 03.81
.0039	.00390		.99999		.59106	1113,6	.00000		0 13 24.43
0.0040	0.00400	10,0	0.99999	0,0	7.60206	1085,7	0.00000	0,0	0 13 45.06
.0041	.00410		.99999		.61278	1059,2	.00000		0 14 05.69
.0042	.00420		.99999		.62325	1034,0	.00000		0 14 26.31
.0043	.00430		.99999		.63347	1010,0	.00000		0 14 46.94
.0044	.00440		.99999		.64345	987,0	.00000		0 15 07.57
0.0045	0.00450	10,0	0.99999	0,0	7.65321	965,1	0.00000	0,0	0 15 28.19
.0046	.00460		.99999		.66276	944,1	.00000		0 15 48.82
.0047	.00470		.99999		.67210	924,0	.00000		0 16 09.44
.0048	.00480		.99999		.68124	904,8	.00000		0 16 30.07
.0049	.00490		.99999		.69019	886,3	9.99999		0 16 50.70
0.0050	0.00500	10,0	0.99999	0,0	7.69897	868,6	9.99999	0,0	0 17 11.32
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	$\log \frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
									° ′ ″
0.0050	0.00500	10,0	0.99999	0,0	7.69897	868,6	9.99999	0,0	0 17 11.32
.0051	.00510		.99999	0,1	.70757	851,6	.99999		0 17 31.95
.0052	.00520		.99999		.71600	835,2	.99999		0 17 52.58
.0053	.00530		.99999		.72427	819,4	.99999		0 18 13.20
.0054	.00540		.99999		.73239	804,2	.99999		0 18 33.83
0.0055	0.00550	10,0	0.99998	0,1	7.74036	789,6	9.99999	0,0	0 18 54.46
.0056	.00560		.99998		.74819	775,5	.99999		0 19 15.08
.0057	.00570		.99998		.75587	761,9	.99999		0 19 35.71
.0058	.00580		.99998		.76343	748,8	.99999		0 19 56.34
.0059	.00590		.99998		.77085	736,1	.99999		0 20 16.96
0.0060	0.00600	10,0	0.99998	0,1	7.77815	723,8	9.99999	0,0	0 20 37.59
.0061	.00610		.99998		.78533	711,9	.99999		0 20 58.22
.0062	.00620		.99998		.79239	700,5	.99999		0 21 18.84
.0063	.00630		.99998		.79934	689,3	.99999		0 21 39.47
.0064	.00640		.99998		.80618	678,6	.99999		0 22 00.09
0.0065	0.00650	10,0	0.99998	0,1	7.81291	668,1	9.99999	0,0	0 22 20.72
.0066	.00660		.99998		.81954	658,0	.99999		0 22 41.35
.0067	.00670		.99998		.82607	648,2	.99999		0 23 01.97
.0068	.00680		.99998		.83251	638,7	.99999		0 23 22.60
.0069	.00690		.99998		.83885	629,4	.99999		0 23 43.23
0.0070	0.00700	10,0	0.99998	0,1	7.84509	620,4	9.99999	0,0	0 24 03.85
.0071	.00710		.99997		.85125	611,7	.99999		0 24 24.48
.0072	.00720		.99997		.85733	603,2	.99999		0 24 45.11
.0073	.00730		.99997		.86332	594,9	.99999		0 25 05.73
.0074	.00740		.99997		.86923	586,9	.99999		0 25 26.36
0.0075	0.00750	10,0	0.99997	0,1	7.87506	579,0	9.99999	0,0	0 25 46.99
.0076	.00760		.99997		.88081	571,4	.99999		0 26 07.61
.0077	.00770		.99997		.88649	564,0	.99999		0 26 28.24
.0078	.00780		.99997		.89209	556,8	.99999		0 26 48.87
.0079	.00790		.99997		.89762	549,7	.99999		0 27 09.49
0.0080	0.00800	10,0	0.99997	0,1	7.90309	542,9	9.99999	0,0	0 27 30.12
.0081	.00810		.99997		.90848	536,2	.99999		0 27 50.74
.0082	.00820		.99997		.91381	529,6	.99999		0 28 11.37
.0083	.00830		.99997		.91907	523,2	.99999		0 28 32.00
.0084	.00840		.99996		.92427	517,0	.99998		0 28 52.62
0.0085	0.00850	10,0	0.99996	0,1	7.92941	510,9	9.99998	0,0	0 29 13.25
.0086	.00860		.99996		.93449	505,0	.99998		0 29 33.88
.0087	.00870		.99996		.93951	499,1	.99998		0 29 54.50
.0088	.00880		.99996		.94448	493,5	.99998		0 30 15.13
.0089	.00890		.99996		.94938	488,0	.99998		0 30 35.76
0.0090	0.00900	10,0	0.99996	0,1	7.95424	482,5	9.99998	0,0	0 30 56.38
.0091	.00910		.99996		.95904	477,2	.99998		0 31 17.01
.0092	.00920		.99996		.96378	472,0	.99998		0 31 37.64
.0093	.00930		.99996		.96848	467,0	.99998		0 31 58.26
.0094	.00940		.99996		.97312	462,0	.99998		0 32 18.89
0.0095	0.00950	10,0	0.99995	0,1	7.97772	457,1	9.99998	0,0	0 32 39.52
.0096	.00960		.99995		.98226	452,4	.99998		0 33 00.14
.0097	.00970		.99995		.98676	447,7	.99998		0 33 20.77
.0098	.00980		.99995		.99122	443,1	.99998		0 33 41.40
.0099	.00990		.99995		.99563	438,7	.99998		0 34 02.02
0.0100	0.01000	10,0	0.99995	0,1	7.99999	434,3	9.99998	0,0	0 34 22.65
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	$\log \frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
0.0100	0.01000	10,0	0.99995	0,1	7.99999	434,3	9.99998	0,0	0° 34′ 22″.65
.0101	.01010		.99995		8.00431	430,0	.99998		0 34 43.27
.0102	.01020		.99995		.00859	425,8	.99998		0 35 03.90
.0103	.01030		.99995		.01283	421,6	.99998		0 35 24.53
.0104	.01040		.99995		.01703	417,6	.99998		0 35 45.15
0.0105	0.01050	10,0	0.99994	0,1	8.02118	413,6	9.99998	0,0	0 36 05.78
.0106	.01060		.99994		.02530	409,7	.99998		0 36 26.41
.0107	.01070		.99994		.02938	405,9	.99998		0 36 47.03
.0108	.01080		.99994		.03342	402,1	.99997		0 37 07.66
.0109	.01090		.99994		.03742	398,4	.99997		0 37 28.29
0.0110	0.01100	10,0	0.99994	0,1	8.04138	394,8	9.99997	0,0	0 37 48.91
.0111	.01110		.99994		.04531	391,2	.99997		0 38 09.54
.0112	.01120		.99994		.04921	387,7	.99997		0 38 30.17
.0113	.01130		.99994		.05307	384,3	.99997		0 38 50.79
.0114	.01140		.99994		.05690	380,9	.99997		0 39 11.42
0.0115	0.01150	10,0	0.99993	0,1	8.06069	377,6	9.99997	0,0	0 39 32.05
.0116	.01160		.99993		.06445	374,4	.99997	0,1	0 39 52.67
.0117	.01170		.99993		.06818	371,2	.99997		0 40 13.30
.0118	.01180		.99993		.07187	368,0	.99997		0 40 33.92
.0119	.01190		.99993		.07554	364,9	.99997		0 40 54.55
0.0120	0.01200	10,0	0.99993	0,1	8.07917	361,9	9.99997	0,1	0 41 15.18
.0121	.01210		.99993		.08277	358,9	.99997		0 41 35.80
.0122	.01220		.99993		.08635	356,0	.99997		0 41 56.43
.0123	.01230		.99992		.08989	353,1	.99997		0 42 17.05
.0124	.01240		.99992		.09341	350,2	.99997		0 42 37.68
0.0125	0.01250	10,0	0.99992	0,1	8.09690	347,4	9.99997	0,1	0 42 58.31
.0126	.01260		.99992		.10036	344,7	.99997		0 43 18.94
.0127	.01270		.99992		.10379	342,0	.99996		0 43 39.56
.0128	.01280		.99992		.10720	339,3	.99996		0 44 00.19
.0129	.01290		.99992		.11058	336,6	.99996		0 44 20.82
0.0130	0.01300	10,0	0.99992	0,1	8.11393	334,1	9.99996	0,1	0 44 41.44
.0131	.01310		.99991		.11726	331,5	.99996		0 45 02.07
.0132	.01320		.99991		.12056	329,0	.99996		0 45 22.70
.0133	.01330		.99991		.12384	326,5	.99996		0 45 43.32
.0134	.01340		.99991		.12709	324,1	.99996		0 46 03.95
0.0135	0.01350	10,0	0.99991	0,1	8.13032	321,7	9.99996	0,1	0 46 24.57
.0136	.01360		.99991		.13353	319,3	.99996		0 46 45.20
.0137	.01370		.99991		.13671	317,0	.99996		0 47 05.83
.0138	.01380		.99990		.13987	314,7	.99996		0 47 26.45
.0139	.01390		.99990		.14300	312,4	.99996		0 47 47.08
0.0140	0.01400	10,0	0.99990	0,1	8.14611	310,2	9.99996	0,1	0 48 07.71
.0141	.01410		.99990		.14920	308,0	.99996		0 48 28.33
.0142	.01420		.99990		.15227	305,8	.99996		0 48 48.96
.0143	.01430		.99990		.15532	303,7	.99996		0 49 09.59
.0144	.01440		.99990		.15835	301,6	.99995		0 49 30.21
0.0145	0.01450	10,0	0.99989	0,1	8.16135	299,5	9.99995	0,1	0 49 50.84
.0146	.01460		.99989		.16434	297,4	.99995		0 50 11.47
.0147	.01470		.99989		.16730	295,4	.99995		0 50 32.09
.0148	.01480		.99989		.17025	293,4	.99995		0 50 52.72
.0149	.01490		.99989		.17317	291,5	.99995		0 51 13.35
0.0150	0.01500	10,0	0.99989	0,1	8.17608	289,5	9.99995	0,1	0 51 33.97
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	log $\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
0.0150	0.01500	10,0	0.99989	0,1	8.17608	289,5	9.99995	0,1	0 51 33.97
.0151	.01510		.99989	0,2	.17896	287,6	.99995		0 51 54.60
.0152	.01520		.99988		.18183	285,7	.99995		0 52 15.23
.0153	.01530		.99988		.18467	283,8	.99995		0 52 35.85
.0154	.01540		.99988		.18750	282,0	.99995		0 52 56.48
0.0155	0.01550	10,0	0.99988	0,2	8.19031	280,2	9.99995	0,1	0 53 17.10
.0156	.01560		.99988		.19311	278,4	.99995		0 53 37.73
.0157	.01570		.99988		.19588	276,6	.99995		0 53 58.36
.0158	.01580		.99988		.19864	274,9	.99995		0 54 18.98
.0159	.01590		.99987		.20138	273,1	.99995		0 54 39.61
0.0160	0.01600	10,0	0.99987	0,2	8.20410	271,4	9.99994	0,1	0 55 00.24
.0161	.01610		.99987		.20681	269,7	.99994		0 55 20.86
.0162	.01620		.99987		.20950	268,1	.99994		0 55 41.49
.0163	.01630		.99987		.21217	266,4	.99994		0 56 02.12
.0164	.01640		.99987		.21482	264,8	.99994		0 56 22.74
0.0165	0.01650	10,0	0.99986	0,2	8.21746	263,2	9.99994	0,1	0 56 43.37
.0166	.01660		.99986		.22009	261,6	.99994		0 57 04.00
.0167	.01670		.99986		.22270	260,0	.99994		0 57 24.62
.0168	.01680		.99986		.22529	258,5	.99994		0 57 45.25
.0169	.01690		.99986		.22787	257,0	.99994		0 58 05.88
0.0170	0.01700	10,0	0.99986	0,2	8.23043	255,4	9.99994	0,1	0 58 26.50
.0171	.01710		.99985		.23298	253,9	.99994		0 58 47.13
.0172	.01720		.99985		.23551	252,5	.99994		0 59 07.75
.0173	.01730		.99985		.23802	251,0	.99994		0 59 28.38
.0174	.01740		.99985		.24053	249,6	.99993		0 59 49.01
0.0175	0.01750	10,0	0.99985	0,2	8.24302	248,1	9.99993	0,1	1 00 09.63
.0176	.01760		.99985		.24549	246,7	.99993		1 00 30.26
.0177	.01770		.99984		.24795	245,3	.99993		1 00 50.89
.0178	.01780		.99984		.25040	244,0	.99993		1 01 11.51
.0179	.01790		.99984		.25283	242,6	.99993		1 01 32.14
0.0180	0.01800	10,0	0.99984	0,2	8.25525	241,2	9.99993	0,1	1 01 52.77
.0181	.01810		.99984		.25766	239,9	.99993		1 02 13.39
.0182	.01820		.99983		.26005	238,6	.99993		1 02 34.02
.0183	.01830		.99983		.26243	237,3	.99993		1 02 54.65
.0184	.01840		.99983		.26479	236,0	.99993		1 03 15.27
0.0185	0.01850	10,0	0.99983	0,2	8.26715	234,7	9.99993	0,1	1 03 35.90
.0186	.01860		.99983		.26949	233,5	.99992		1 03 56.53
.0187	.01870		.99983		.27182	232,2	.99992		1 04 17.15
.0188	.01880		.99982		.27413	231,0	.99992		1 04 37.78
.0189	.01890		.99982		.27644	229,8	.99992		1 04 58.40
0.0190	0.01900	10,0	0.99982	0,2	8.27873	228,5	9.99992	0,1	1 05 19.03
.0191	.01910		.99982		.28101	227,4	.99992		1 05 39.66
.0192	.01920		.99982		.28327	226,2	.99992		1 06 00.28
.0193	.01930		.99981		.28553	225,0	.99992		1 06 20.91
.0194	.01940		.99981		.28777	223,8	.99992		1 06 41.54
0.0195	0.01950	10,0	0.99981	0,2	8.29001	222,7	9.99992	0,1	1 07 02.16
.0196	.01960		.99981		.29223	221,6	.99992		1 07 22.79
.0197	.01970		.99981		.29444	220,4	.99992		1 07 43.42
.0198	.01980		.99980		.29664	219,3	.99991		1 08 04.04
.0199	.01990		.99980		.29882	218,2	.99991		1 08 24.67
0.0200	0.02000	10,0	0.99980	0,2	8.30100	217,1	9.99991	0,1	1 08 45.30
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u
0.0200	0.02000	10,0	0.99980	0,2	8.30100	217,1	9.99991	0,1	1° 08′ 45.30″
.0201	.02010		.99980		.30317	216,0	.99991		1 09 05.92
.0202	.02020		.99980		.30532	215,0	.99991		1 09 26.55
.0203	.02030		.99979		.30747	213,9	.99991		1 09 47.18
.0204	.02040		.99979		.30960	212,9	.99991		1 10 07.80
0.0205	0.02050	10,0	0.99979	0,2	8.31172	211,8	9.99991	0,1	1 10 28.43
.0206	.02060		.99979		.31384	210,8	.99991		1 10 49.06
.0207	.02070		.99979		.31594	209,8	.99991		1 11 09.68
.0208	.02080		.99978		.31803	208,8	.99991		1 11 30.31
.0209	.02090		.99978		.32012	207,8	.99991		1 11 50.93
0.0210	0.02100	10,0	0.99978	0,2	8.32219	206,8	9.99990	0,1	1 12 11.56
.0211	.02110		.99978		.32425	205,8	.99990		1 12 32.19
.0212	.02120		.99978		.32630	204,8	.99990		1 12 52.81
.0213	.02130		.99977		.32835	203,9	.99990		1 13 13.44
.0214	.02140		.99977		.33038	202,9	.99990		1 13 34.07
0.0215	0.02150	10,0	0.99977	0,2	8.33241	202,0	9.99990	0,1	1 13 54.69
.0216	.02160		.99977		.33442	201,0	.99990		1 14 15.32
.0217	.02170		.99976		.33643	200,1	.99990		1 14 35.95
.0218	.02180		.99976		.33842	199,2	.99990		1 14 56.57
.0219	.02190		.99976		.34041	198,3	.99990		1 15 17.20
0.0220	0.02200	10,0	0.99976	0,2	8.34239	197,4	9.99989	0,1	1 15 37.83
.0221	.02210		.99976		.34436	196,5	.99989		1 15 58.45
.0222	.02220		.99975		.34632	195,6	.99989		1 16 19.08
.0223	.02230		.99975		.34827	194,7	.99989		1 16 39.71
.0224	.02240		.99975		.35021	193,8	.99989		1 17 00.33
0.0225	0.02250	10,0	0.99975	0,2	8.35215	193,0	9.99989	0,1	1 17 20.96
.0226	.02260		.99974		.35407	192,1	.99989		1 17 41.58
.0227	.02270		.99974		.35599	191,3	.99989		1 18 02.21
.0228	.02280		.99974		.35790	190,4	.99989		1 18 22.84
.0229	.02290		.99974		.35980	189,6	.99989		1 18 43.46
0.0230	0.02300	10,0	0.99974	0,2	8.36169	188,8	9.99989	0,1	1 19 04.09
.0231	.02310		.99973		.36357	188,0	.99988		1 19 24.72
.0232	.02320		.99973		.36545	187,2	.99988		1 19 45.34
.0233	.02330		.99973		.36732	186,4	.99988		1 20 05.97
.0234	.02340		.99973		.36918	185,6	.99988		1 20 26.60
0.0235	0.02350	10,0	0.99972	0,2	8.37103	184,8	9.99988	0,1	1 20 47.22
.0236	.02360		.99972		.37287	184,0	.99988		1 21 07.85
.0237	.02370		.99972		.37471	183,2	.99988		1 21 28.48
.0238	.02380		.99972		.37654	182,4	.99988		1 21 49.10
.0239	.02390		.99971		.37836	181,7	.99988		1 22 09.73
0.0240	0.02400	10,0	0.99971	0,2	8.38017	180,9	9.99987	0,1	1 22 30.36
.0241	.02410		.99971		.38198	180,2	.99987		1 22 50.98
.0242	.02420		.99971		.38377	179,4	.99987		1 23 11.61
.0243	.02430		.99970		.38556	178,7	.99987		1 23 32.23
.0244	.02440		.99970		.38735	178,0	.99987		1 23 52.86
0.0245	0.02450	10,0	0.99970	0,2	8.38912	177,2	9.99987	0,1	1 24 13.49
.0246	.02460		.99970		.39089	176,5	.99987		1 24 34.11
.0247	.02470		.99969		.39265	175,8	.99987		1 24 54.74
.0248	.02480		.99969		.39441	175,1	.99987		1 25 15.37
.0249	.02490		.99969		.39615	174,4	.99987		1 25 35.99
0.0250	0.02500	10,0	0.99969	0,2	8.39789	173,7	9.99986	0,1	1 25 56.02
u	−i sinh iu	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log \frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
0.0250	0.02500	10,0	0.99969	0,2	8.39789	173,7	9.99986	0,1	1° 25′ 56.″62
.0251	.02510		.99969	0,3	.39963	173,0	.99986		1 26 17.25
.0252	.02520		.99968		.40135	172,3	.99986		1 26 37.87
.0253	.02530		.99968		.40307	171,6	.99986		1 26 58.50
.0254	.02540		.99968		.40479	170,9	.99986		1 27 19.13
0.0255	0.02550	10,0	0.99967	0,3	8.40649	170,3	9.99986	0,1	1 27 39.75
.0256	.02560		.99967		.40819	169,6	.99986		1 28 00.38
.0257	.02570		.99967		.40989	168,9	.99986		1 28 21.01
.0258	.02580		.99967		.41157	168,3	.99986		1 28 41.63
.0259	.02590		.99966		.41325	167,6	.99985		1 29 02.26
0.0260	0.02600	10,0	0.99966	0,3	8.41492	167,0	9.99985	0,1	1 29 22.88
.0261	.02610		.99966		.41659	166,4	.99985		1 29 43.51
.0262	.02620		.99966		.41825	165,7	.99985		1 30 04.14
.0263	.02630		.99965		.41991	165,1	.99985		1 30 24.76
.0264	.02640		.99965		.42155	164,5	.99985		1 30 45.39
0.0265	0.02650	10,0	0.99965	0,3	8.42320	163,8	9.99985	0,1	1 31 06.02
.0266	.02660		.99965		.42483	163,2	.99985		1 31 26.64
.0267	.02670		.99964		.42646	162,6	.99985		1 31 47.27
.0268	.02680		.99964		.42808	162,0	.99984		1 32 07.90
.0269	.02690		.99964		.42970	161,4	.99984		1 32 28.52
0.0270	0.02700	10,0	0.99964	0,3	8.43131	160,8	9.99984	0,1	1 32 49.15
.0271	.02710		.99963		.43292	160,2	.99984		1 33 09.78
.0272	.02720		.99963		.43452	159,6	.99984		1 33 30.40
.0273	.02730		.99963		.43611	159,0	.99984		1 33 51.03
.0274	.02740		.99962		.43770	158,5	.99984		1 34 11.66
0.0275	0.02750	10,0	0.99962	0,3	8.43928	157,9	9.99984	0,1	1 34 32.28
.0276	.02760		.99962		.44085	157,3	.99983		1 34 52.91
.0277	.02770		.99962		.44242	156,7	.99983		1 35 13.54
.0278	.02780		.99961		.44399	156,2	.99983		1 35 34.16
.0279	.02790		.99961		.44555	155,6	.99983		1 35 54.79
0.0280	0.02800	10,0	0.99961	0,3	8.44710	155,1	9.99983	0,1	1 36 15.41
.0281	.02810		.99961		.44865	154,5	.99983		1 36 36.04
.0282	.02820		.99960		.45019	154,0	.99983		1 36 56.67
.0283	.02830		.99960		.45173	153,4	.99983		1 37 17.29
.0284	.02840		.99960		.45326	152,9	.99982		1 37 37.92
0.0285	0.02850	10,0	0.99959	0,3	8.45479	152,3	9.99982	0,1	1 37 58.55
.0286	.02860		.99959		.45631	151,8	.99982		1 38 19.17
.0287	.02870		.99959		.45782	151,3	.99982		1 38 39.80
.0288	.02880		.99959		.45933	150,8	.99982		1 39 00.43
.0289	.02890		.99958		.46084	150,2	.99982		1 39 21.05
0.0290	0.02900	10,0	0.99958	0,3	8.46234	149,7	9.99982	0,1	1 39 41.68
.0291	.02910		.99958		.46383	149,2	.99982		1 40 02.31
.0292	.02920		.99957		.46532	148,7	.99981		1 40 22.93
.0293	.02930		.99957		.46681	148,2	.99981		1 40 43.56
.0294	.02940		.99957		.46828	147,7	.99981		1 41 04.19
0.0295	0.02950	10,0	0.99956	0,3	8.46976	147,2	9.99981	0,1	1 41 24.81
.0296	.02960		.99956		.47123	146,7	.99981		1 41 45.44
.0297	.02970		.99956		.47269	146,2	.99981		1 42 06.06
.0298	.02980		.99956		.47415	145,7	.99981		1 42 26.69
.0299	.02990		.99955		.47561	145,2	.99981		1 42 47.32
0.0300	0.03000	10,0	0.99955	0,3	8.47706	144,7	9.99980	0,1	1 43 07.94
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	$\log \frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u (° ′ ″)
0.0300	0.03000	10,0	0.99955	0,3	8.47706	144,7	9.99980	0,1	1 43 07.94
.0301	.03010		.99955		.47850	144,2	.99980		1 43 28.57
.0302	.03020		.99954		.47994	143,8	.99980		1 43 49.20
.0303	.03030		.99954		.48138	143,3	.99980		1 44 09.82
.0304	.03040		.99954		.48281	142,8	.99980		1 44 30.45
0.0305	0.03050	10,0	0.99953	0,3	8.48423	142,3	9.99980	0,1	1 44 51.08
.0306	.03060		.99953		.48565	141,9	.99980		1 45 11.70
.0307	.03070		.99953		.48707	141,4	.99980		1 45 32.33
.0308	.03080		.99953		.48848	141,0	.99979		1 45 52.96
.0309	.03090		.99952		.48989	140,5	.99979		1 46 13.58
0.0310	0.03100	10,0	0.99952	0,3	8.49129	140,1	9.99979	0,1	1 46 34.21
.0311	.03109		.99952		.49269	139,6	.99979		1 46 54.84
.0312	.03119		.99951		.49408	139,2	.99979		1 47 15.46
.0313	.03129		.99951		.49547	138,7	.99979		1 47 36.09
.0314	.03139		.99951		.49686	138,3	.99979		1 47 56.71
0.0315	0.03149	10,0	0.99950	0,3	8.49824	137,8	9.99978	0,1	1 48 17.34
.0316	.03159		.99950		.49961	137,4	.99978		1 48 37.97
.0317	.03169		.99950		.50099	137,0	.99978		1 48 58.59
.0318	.03179		.99949		.50235	136,5	.99978		1 49 19.22
.0319	.03189		.99949		.50372	136,1	.99978		1 49 39.85
0.0320	0.03199	10,0	0.99949	0,3	8.50508	135,7	9.99978	0,1	1 50 00.47
.0321	.03209		.99948		.50643	135,2	.99978		1 50 21.10
.0322	.03219		.99948		.50778	134,8	.99977		1 50 41.73
.0323	.03229		.99948		.50913	134,4	.99977		1 51 02.35
.0324	.03239		.99948		.51047	134,0	.99977		1 51 22.98
0.0325	0.03249	10,0	0.99947	0,3	8.51181	133,6	9.99977	0,1	1 51 43.61
.0326	.03259		.99947		.51314	133,2	.99977		1 52 04.23
.0327	.03269		.99947		.51447	132,8	.99977		1 52 24.86
.0328	.03279		.99946		.51580	132,4	.99977		1 52 45.49
.0329	.03289		.99946		.51712	132,0	.99976		1 53 06.11
0.0330	0.03299	10,0	0.99946	0,3	8.51844	131,6	9.99976	0,1	1 53 26.74
.0331	.03309		.99945		.51975	131,2	.99976		1 53 47.37
.0332	.03319		.99945		.52106	130,8	.99976		1 54 07.99
.0333	.03329		.99945		.52236	130,4	.99976		1 54 28.62
.0334	.03339		.99944		.52367	130,0	.99976		1 54 49.24
0.0335	0.03349	10,0	0.99944	0,3	8.52496	129,6	9.99976	0,1	1 55 09.87
.0336	.03359		.99944		.52626	129,2	.99975		1 55 30.50
.0337	.03369		.99943		.52755	128,8	.99975		1 55 51.12
.0338	.03379		.99943		.52883	128,4	.99975		1 56 11.75
.0339	.03389		.99943		.53012	128,1	.99975		1 56 32.38
0.0340	0.03399	10,0	0.99942	0,3	8.53140	127,7	9.99975	0,1	1 56 53.00
.0341	.03409		.99942		.53267	127,3	.99975		1 57 13.63
.0342	.03419		.99942		.53394	126,9	.99975		1 57 34.26
.0343	.03429		.99941		.53521	126,6	.99974		1 57 54.88
.0344	.03439		.99941		.53647	126,2	.99974		1 58 15.51
0.0345	0.03449	10,0	0.99940	0,3	8.53773	125,8	9.99974	0,1	1 58 36.14
.0346	.03459		.99940		.53899	125,5	.99974	0,2	1 58 56.76
.0347	.03469		.99940		.54024	125,1	.99974		1 59 17.39
.0348	.03479		.99939		.54149	124,7	.99974		1 59 38.02
.0349	.03489		.99939		.54274	124,4	.99974		1 59 58.64
0.0350	0.03499	10,0	0.99939	0,3	8.54398	124,0	9.99973	0,2	2 00 19.27
u	−i sinh iu	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log\frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
0.0350	0.03499	10,0	0.99939	0,3	8.54398	124,0	9.99973	0,2	2 00 19.27
.0351	.03509		.99938	0,4	.54522	123,7	.99973		2 00 39.89
.0352	.03519		.99938		.54645	123,3	.99973		2 01 00.52
.0353	.03529		.99938		.54768	123,0	.99973		2 01 21.15
.0354	.03539		.99937		.54891	122,6	.99973		2 01 41.77
0.0355	0.03549	10,0	0.99937	0,4	8.55014	122,3	9.99973	0,2	2 02 02.40
.0356	.03559		.99937		.55136	121,9	.99972		2 02 23.03
.0357	.03569		.99936		.55258	121,6	.99972		2 02 43.65
.0358	.03579		.99936		.55379	121,3	.99972		2 03 04.28
.0359	.03589		.99936		.55500	120,9	.99972		2 03 24.91
0.0360	0.03599	10,0	0.99935	0,4	8.55621	120,6	9.99972	0,2	2 03 45.53
.0361	.03609		.99935		.55741	120,3	.99972		2 04 06.16
.0362	.03619		.99934		.55861	119,9	.99972		2 04 26.79
.0363	.03629		.99934		.55981	119,6	.99971		2 04 47.41
.0364	.03639		.99934		.56101	119,3	.99971		2 05 08.04
0.0365	0.03649	10,0	0.99933	0,4	8.56220	118,9	9.99971	0,2	2 05 28.67
.0366	.03659		.99933		.56338	118,6	.99971		2 05 49.29
.0367	.03669		.99933		.56457	118,3	.99971		2 06 09.92
.0368	.03679		.99932		.56575	118,0	.99971		2 06 30.54
.0369	.03689		.99932		.56693	117,6	.99970		2 06 51.17
0.0370	0.03699	10,0	0.99932	0,4	8.56810	117,3	9.99970	0,2	2 07 11.80
.0371	.03709		.99931		.56927	117,0	.99970		2 07 32.42
.0372	.03719		.99931		.57044	116,7	.99970		2 07 53.05
.0373	.03729		.99930		.57161	116,4	.99970		2 08 13.68
.0374	.03739		.99930		.57277	116,1	.99970		2 08 34.30
0.0375	0.03749	10,0	0.99930	0,4	8.57393	115,8	9.99969	0,2	2 08 54.93
.0376	.03759		.99929		.57509	115,4	.99969		2 09 15.56
.0377	.03769		.99929		.57624	115,1	.99969		2 09 36.18
.0378	.03779		.99929		.57739	114,8	.99969		2 09 56.81
.0379	.03789		.99928		.57854	114,5	.99969		2 10 17.44
0.0380	0.03799	10,0	0.99928	0,4	8.57968	114,2	9.99969	0,2	2 10 38.06
.0381	.03809		.99927		.58082	113,9	.99968		2 10 58.69
.0382	.03819		.99927		.58196	113,6	.99968		2 11 19.32
.0383	.03829		.99927		.58309	113,3	.99968		2 11 39.94
.0384	.03839		.99926		.58422	113,0	.99968		2 12 00.57
0.0385	0.03849	10,0	0.99926	0,4	8.58535	112,7	9.99968	0,2	2 12 21.20
.0386	.03859		.99926		.58648	112,5	.99968		2 12 41.82
.0387	.03869		.99925		.58760	112,2	.99967		2 13 02.45
.0388	.03879		.99925		.58872	111,9	.99967		2 13 23.07
.0389	.03889		.99924		.58984	111,6	.99967		2 13 43.70
0.0390	0.03899	10,0	0.99924	0,4	8.59095	111,3	9.99967	0,2	2 14 04.33
.0391	.03909		.99924		.59207	111,0	.99967		2 14 24.95
.0392	.03919		.99923		.59317	110,7	.99967		2 14 45.58
.0393	.03929		.99923		.59428	110,5	.99966		2 15 06.21
.0394	.03939		.99922		.59538	110,2	.99966		2 15 26.83
0.0395	0.03949	10,0	0.99922	0,4	8.59648	109,9	9.99966	0,2	2 15 47.46
.0396	.03959		.99922		.59758	109,6	.99966		2 16 08.09
.0397	.03969		.99921		.59868	109,3	.99966		2 16 28.71
.0398	.03979		.99921		.59977	109,1	.99966		2 16 49.34
.0399	.03989		.99920		.60086	108,8	.99965		2 17 09.97
0.0400	0.03999	10,0	0.99920	0,4	8.60194	108,5	9.99965	0,2	2 17 30.59
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
									° ′ ″
0.0400	0.03999	10,0	0.99920	0,4	8.60194	108,5	9.99965	0,2	2 17 30.59
.0401	.04009		.99920		.60303	108,2	.99965		2 17 51.22
.0402	.04019		.99919		.60411	108,0	.99965		2 18 11.85
.0403	.04029		.99919		.60519	107,7	.99965		2 18 32.47
.0404	.04039		.99918		.60626	107,4	.99965		2 18 53.10
0.0405	0.04049	10,0	0.99918	0,4	8.60734	107,2	9.99964	0,2	2 19 13.72
.0406	.04059		.99918		.60841	106,9	.99964		2 19 34.35
.0407	.04069		.99917		.60947	106,6	.99964		2 19 54.98
.0408	.04079		.99917		.61054	106,4	.99964		2 20 15.60
.0409	.04089		.99916		.61160	106,1	.99964		2 20 36.23
0.0410	0.04099	10,0	0.99916	0,4	8.61266	105,9	9.99963	0,2	2 20 56.86
.0411	.04109		.99916		.61372	105,6	.99963		2 21 17.48
.0412	.04119		.99915		.61477	105,4	.99963		2 21 38.11
.0413	.04129		.99915		.61583	105,1	.99963		2 21 58.74
.0411	.04139		.99914		.61688	104,8	.99963		2 22 19.36
0.0415	0.04149	10,0	0.99914	0,4	8.61792	104,6	9.99963	0,2	2 22 39.99
.0416	.04159		.99913		.61897	104,3	.99962		2 23 00.62
.0417	.04169		.99913		.62001	104,1	.99962		2 23 21.24
.0418	.04179		.99913		.62105	103,8	.99962		2 23 41.87
.0419	.04189		.99912		.62209	103,6	.99962		2 24 02.50
0.0420	0.04199	10,0	0.99912	0,4	8.62312	103,3	9.99962	0,2	2 24 23.12
.0421	.04209		.99911		.62415	103,1	.99962		2 24 43.75
.0422	.04219		.99911		.62518	102,9	.99961		2 25 04.37
.0423	.04229		.99911		.62621	102,6	.99961		2 25 25.00
.0424	.04239		.99910		.62724	102,4	.99961		2 25 45.63
0.0425	0.04249	10,0	0.99910	0,4	8.62826	102,1	9.99961	0,2	2 26 06.25
.0426	.04259		.99909		.62928	101,9	.99961		2 26 26.88
.0427	.04269		.99909		.63030	101,6	.99960		2 26 47.51
.0428	.04279		.99908		.63131	101,4	.99960		2 27 08.13
.0429	.04289		.99908		.63232	101,2	.99960		2 27 28.76
0.0430	0.04299	10,0	0.99908	0,4	8.63333	100,9	9.99960	0,2	2 27 49.39
.0431	.04309		.99907		.63434	100,7	.99960		2 28 10.01
.0432	.04319		.99907		.63535	100,5	.99959		2 28 30.64
.0433	.04329		.99906		.63635	100,2	.99959		2 28 51.27
.0434	.04339		.99906		.63735	100,0	.99959		2 29 11.89
0.0435	0.04349	10,0	0.99905	0,4	8.63835	99,8	9.99959	0,2	2 29 32.52
.0436	.04359		.99905		.63935	99,5	.99959		2 29 53.15
.0437	.04369		.99905		.64034	99,3	.99959		2 30 13.77
.0438	.04379		.99904		.64134	99,1	.99958		2 30 34.40
.0439	.04389		.99904		.64233	98,9	.99958		2 30 55.02
0.0440	0.04399	10,0	0.99903	0,4	8.64331	98,6	9.99958	0,2	2 31 15.65
.0441	.04409		.99903		.64430	98,4	.99958		2 31 36.28
.0442	.04419		.99902		.64528	98,2	.99958		2 31 56.90
.0443	.04429		.99902		.64626	98,0	.99957		2 32 17.53
.0444	.04439		.99901		.64724	97,7	.99957		2 32 38.16
0.0445	0.04449	10,0	0.99901	0,4	8.64822	97,5	9.99957	0,2	2 32 58.78
.0446	.04459		.99901		.64919	97,3	.99957		2 33 19.41
.0447	.04469		.99900		.65016	97,1	.99957		2 33 40.04
.0448	.04479		.99900		.65113	96,9	.99956		2 34 00.66
.0449	.04488		.99899		.65210	96,7	.99956		2 34 21.29
0.0450	0.04498	10,0	0.99899	0,4	8.65307	96,4	9.99956	0,2	2 34 41.92
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	log $\frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
0.0450	0.04498	10,0	0.99899	0,4	8.65307	96,4	9.99956	0,2	2 34 41.92
.0451	.04508		.99898	0,5	.65403	96,2	.99956		2 35 02.54
.0452	.04518		.99898		.65499	96,0	.99956		2 35 23.17
.0453	.04528		.99897		.65595	95,8	.99955		2 35 43.80
.0454	.04538		.99897		.65691	95,6	.99955		2 36 04.42
0.0455	0.04548	10,0	0.99897	0,5	8.65786	95,4	9.99955	0,2	2 36 25.05
.0456	.04558		.99896		.65881	95,2	.99955		2 36 45.68
.0457	.04568		.99896		.65976	95,0	.99955		2 37 06.30
.0458	.04578		.99895		.66071	94,8	.99954		2 37 26.93
.0459	.04588		.99895		.66166	94,6	.99954		2 37 47.55
0.0460	0.04598	10,0	0.99894	0,5	8.66260	94,3	9.99954	0,2	2 38 08.18
.0461	.04608		.99894		.66355	94,1	.99954		2 38 28.81
.0462	.04618		.99893		.66449	93,9	.99954		2 38 49.43
.0463	.04628		.99893		.66543	93,7	.99953		2 39 10.06
.0464	.04638		.99892		.66636	93,5	.99953		2 39 30.69
0.0465	0.04648	10,0	0.99892	0,5	8.66730	93,3	9.99953	0,2	2 39 51.31
.0466	.04658		.99891		.66823	93,1	.99953		2 40 11.94
.0467	.04668		.99891		.66916	92,9	.99953		2 40 32.57
.0468	.04678		.99891		.67009	92,7	.99952		2 40 53.19
.0469	.04688		.99890		.67101	92,5	.99952		2 41 13.82
0.0470	0.04698	10,0	0.99890	0,5	8.67194	92,3	9.99952	0,2	2 41 34.45
.0471	.04708		.99889		.67286	92,1	.99952		2 41 55.07
.0472	.04718		.99889		.67378	91,9	.99952		2 42 15.70
.0473	.04728		.99888		.67470	91,7	.99951		2 42 36.33
.0474	.04738		.99888		.67562	91,6	.99951		2 42 56.95
0.0475	0.04748	10,0	0.99887	0,5	8.67653	91,4	9.99951	0,2	2 43 17.58
.0476	.04758		.99887		.67744	91,2	.99951		2 43 38.20
.0477	.04768		.99886		.67835	91,0	.99951		2 43 58.83
.0478	.04778		.99886		.67926	90,8	.99950		2 44 19.46
.0479	.04788		.99885		.68017	90,6	.99950		2 44 40.08
0.0480	0.04798	10,0	0.99885	0,5	8.68107	90,4	9.99950	0,2	2 45 00.71
.0481	.04808		.99884		.68198	90,2	.99950		2 45 21.34
.0482	.04818		.99884		.68288	90,0	.99950		2 45 41.96
.0483	.04828		.99883		.68378	89,8	.99949		2 46 02.59
.0484	.04838		.99883		.68468	89,7	.99949		2 46 23.22
0.0485	0.04848	10,0	0.99882	0,5	8.68557	89,5	9.99949	0,2	2 46 43.84
.0486	.04858		.99882		.68647	89,3	.99949		2 47 04.47
.0487	.04868		.99881		.68736	89,1	.99948		2 47 25.10
.0488	.04878		.99881		.68825	88,9	.99948		2 47 45.72
.0489	.04888		.99880		.68914	88,7	.99948		2 48 06.35
0.0490	0.04898	10,0	0.99880	0,5	8.69002	88,6	9.99948	0,2	2 48 26.98
.0491	.04908		.99879		.69091	88,4	.99948		2 48 47.60
.0492	.04918		.99879		.69179	88,2	.99947		2 49 08.23
.0493	.04928		.99879		.69267	88,0	.99947		2 49 28.85
.0494	.04938		.99878		.69355	87,8	.99947		2 49 49.48
0.0495	0.04948	10,0	0.99878	0,5	8.69443	87,7	9.99947	0,2	2 50 10.11
.0496	.04958		.99877		.69530	87,5	.99947		2 50 30.73
.0497	.04968		.99877		.69618	87,3	.99946		2 50 51.36
.0498	.04978		.99876		.69705	87,1	.99946		2 51 11.99
.0499	.04988		.99876		.69792	87,0	.99946		2 51 32.61
0.0500	0.04998	10,0	0.99875	0,5	8.69879	86,8	9.99946	0,2	2 51 53.24
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
0.0500	0.04998	10,0	0.99875	0,5	8.69879	86,8	9.99946	0,2	2° 51′ 53″.24
.0501	.05008		.99875		.69966	86,6	.99945		2 52 13.87
.0502	.05018		.99874		.70052	86,4	.99945		2 52 34.49
.0503	.05028		.99874		.70138	86,3	.99945		2 52 55.12
.0504	.05038		.99873		.70225	86,1	.99945		2 53 15.75
0.0505	0.05048	10,0	0.99873	0,5	8.70311	85,9	9.99945	0,2	2 53 36.37
.0506	.05058		.99872		.70397	85,8	.99944		2 53 57.00
.0507	.05068		.99872		.70482	85,6	.99944		2 54 17.63
.0508	.05078		.99871		.70568	85,4	.99944		2 54 38.25
.0509	.05088		.99870		.70653	85,2	.99944		2 54 58.88
0.0510	0.05098	10,0	0.99870	0,5	8.70738	85,1	9.99943	0,2	2 55 19.51
.0511	.05108		.99869		.70823	84,9	.99943		2 55 40.13
.0512	.05118		.99869		.70908	84,7	.99943		2 56 00.76
.0513	.05128		.99868		.70993	84,6	.99943		2 56 21.38
.0514	.05138		.99868		.71077	84,4	.99943		2 56 42.01
0.0515	0.05148	10,0	0.99867	0,5	8.71162	84,3	9.99942	0,2	2 57 02.64
.0516	.05158		.99867		.71246	84,1	.99942		2 57 23.26
.0517	.05168		.99866		.71330	83,9	.99942		2 57 43.89
.0518	.05178		.99866		.71414	83,8	.99942		2 58 04.52
.0519	.05188		.99865		.71497	83,6	.99941		2 58 25.14
0.0520	0.05198	10,0	0.99865	0,5	8.71581	83,4	9.99941	0,2	2 58 45.77
.0521	.05208		.99864		.71664	83,3	.99941		2 59 06.40
.0522	.05218		.99864		.71747	83,1	.99941		2 59 27.02
.0523	.05228		.99863		.71830	83,0	.99941		2 59 47.65
.0524	.05238		.99863		.71913	82,8	.99940		3 00 08.28
0.0525	0.05248	10,0	0.99862	0,5	8.71996	82,6	9.99940	0,2	3 00 28.90
.0526	.05258		.99862		.72079	82,5	.99940		3 00 49.53
.0527	.05268		.99861		.72161	82,3	.99940		3 01 10.16
.0528	.05278		.99861		.72243	82,2	.99939		3 01 30.78
.0529	.05288		.99860		.72325	82,0	.99939		3 01 51.41
0.0530	0.05298	10,0	0.99860	0,5	8.72407	81,9	9.99939	0,2	3 02 12.03
.0531	.05308		.99859		.72489	81,7	.99939		3 02 32.66
.0532	.05317		.99859		.72571	81,6	.99939		3 02 53.29
.0533	.05327		.99858		.72652	81,4	.99938		3 03 13.91
.0534	.05337		.99857		.72733	81,3	.99938		3 03 34.54
0.0535	0.05347	10,0	0.99857	0,5	8.72815	81,1	9.99938	0,2	3 03 55.17
.0536	.05357		.99856		.72896	80,9	.99938		3 04 15.79
.0537	.05367		.99856		.72977	80,8	.99937		3 04 36.42
.0538	.05377		.99855		.73057	80,6	.99937		3 04 57.05
.0539	.05387		.99855		.73138	80,5	.99937		3 05 17.67
0.0540	0.05397	10,0	0.99854	0,5	8.73218	80,3	9.99937	0,2	3 05 38.30
.0541	.05407		.99854		.73299	80,2	.99936		3 05 58.93
.0542	.05417		.99853		.73379	80,0	.99936		3 06 19.55
.0543	.05427		.99853		.73459	79,9	.99936		3 06 40.18
.0544	.05437		.99852		.73538	79,8	.99936		3 07 00.81
0.0545	0.05447	10,0	0.99852	0,5	8.73618	79,6	9.99935	0,2	3 07 21.43
.0546	.05457		.99851		.73698	79,5	.99935		3 07 42.06
.0547	.05467		.99850		.73777	79,3	.99935		3 08 02.68
.0548	.05477		.99850		.73856	79,2	.99935		3 08 23.31
.0549	.05487		.99849		.73935	79,0	.99935		3 08 43.94
0.0550	0.05497	10,0	0.99849	0,5	8.74014	78,9	9.99934	0,2	3 09 04.56
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u (° ′ ″)
0.0550	0.05497	10,0	0.99849	0,5	8.74014	78,9	9.99934	0,2	3 09 04.56
.0551	.05507		.99848	0,6	.74093	78,7	.99934		3 09 25.19
.0552	.05517		.99848		.74172	78,6	.99934		3 09 45.82
.0553	.05527		.99847		.74250	78,5	.99934		3 10 06.44
.0554	.05537		.99847		.74329	78,3	.99933		3 10 27.07
0.0555	0.05547	10,0	0.99846	0,6	8.74407	78,2	9.99933	0,2	3 10 47.70
.0556	.05557		.99845		.74485	78,0	.99933		3 11 08.32
.0557	.05567		.99845		.74563	77,9	.99933		3 11 28.95
.0558	.05577		.99844		.74641	77,7	.99932		3 11 49.58
.0559	.05587		.99844		.74719	77,6	.99932		3 12 10.20
0.0560	0.05597	10,0	0.99843	0,6	8.74796	77,5	9.99932	0,2	3 12 30.83
.0561	.05607		.99843		.74873	77,3	.99932		3 12 51.46
.0562	.05617		.99842		.74951	77,2	.99931		3 13 12.08
.0563	.05627		.99842		.75028	77,1	.99931		3 13 32.71
.0564	.05637		.99841		.75105	76,9	.99931		3 13 53.34
0.0565	0.05647	10,0	0.99840	0,6	8.75182	76,8	9.99931	0,2	3 14 13.96
.0566	.05657		.99840		.75258	76,6	.99930		3 14 34.59
.0567	.05667		.99839		.75335	76,5	.99930		3 14 55.21
.0568	.05677		.99839		.75411	76,4	.99930		3 15 15.84
.0569	.05687		.99838		.75488	76,2	.99930		3 15 36.47
0.0570	0.05697	10,0	0.99838	0,6	8.75564	76,1	9.99929	0,2	3 15 57.09
.0571	.05707		.99837		.75640	76,0	.99929		3 16 17.72
.0572	.05717		.99836		.75716	75,8	.99929		3 16 38.35
.0573	.05727		.99836		.75792	75,7	.99929		3 16 58.97
.0574	.05737		.99835		.75867	75,6	.99928		3 17 19.60
0.0575	0.05747	10,0	0.99835	0,6	8.75943	75,4	9.99928	0,2	3 17 40.23
.0576	.05757		.99834		.76018	75,3	.99928	0,3	3 18 00.85
.0577	.05767		.99834		.76093	75,2	.99928		3 18 21.48
.0578	.05777		.99833		.76169	75,1	.99927		3 18 42.11
.0579	.05787		.99832		.76244	74,9	.99927		3 19 02.73
0.0580	0.05797	10,0	0.99832	0,6	8.76318	74,8	9.99927	0,3	3 19 23.36
.0581	.05807		.99831		.76393	74,7	.99927		3 19 43.99
.0582	.05817		.99831		.76468	74,5	.99926		3 20 04.61
.0583	.05827		.99830		.76542	74,4	.99926		3 20 25.24
.0584	.05837		.99830		.76617	74,3	.99926		3 20 45.86
0.0585	0.05847	10,0	0.99829	0,6	8.76691	74,2	9.99926	0,3	3 21 06.49
.0586	.05857		.99828		.76765	74,0	.99925		3 21 27.12
.0587	.05867		.99828		.76839	73,9	.99925		3 21 47.74
.0588	.05877		.99827		.76913	73,8	.99925		3 22 08.37
.0589	.05887		.99827		.76986	73,6	.99925		3 22 29.00
0.0590	0.05897	10,0	0.99826	0,6	8.77060	73,5	9.99924	0,3	3 22 49.62
.0591	.05907		.99825		.77133	73,4	.99924		3 23 10.25
.0592	.05917		.99825		.77207	73,3	.99924		3 23 30.88
.0593	.05927		.99824		.77280	73,2	.99924		3 23 51.50
.0594	.05937		.99824		.77353	73,0	.99923		3 24 12.13
0.0595	0.05946	10,0	0.99823	0,6	8.77426	72,9	9.99923	0,3	3 24 32.76
.0596	.05956		.99822		.77499	72,8	.99923		3 24 53.38
.0597	.05966		.99822		.77572	72,7	.99923		3 25 14.01
.0598	.05976		.99821		.77644	72,5	.99922		3 25 34.64
.0599	.05986		.99821		.77717	72,4	.99922		3 25 55.26
0.0600	0.05996	10,0	0.99820	0,6	8.77789	72,3	9.99922	0,3	3 26 15.89
u	−i sinh iu	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log\frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
0.0600	0.05996	10,0	0.99820	0,6	8.77789	72,3	9.99922	0,3	3° 26′ 15″.89
.0601	.06006		.99819		.77861	72,2	.99922		3 26 36.51
.0602	.06016		.99819		.77933	72,1	.99921		3 26 57.14
.0603	.06026		.99818		.78005	71,9	.99921		3 27 17.77
.0604	.06036		.99818		.78077	71,8	.99921		3 27 38.39
0.0605	0.06046	10,0	0.99817	0,6	8.78149	71,7	9.99920	0,3	3 27 59.02
.0606	.06056		.99816		.78221	71,6	.99920		3 28 19.65
.0607	.06066		.99816		.78292	71,5	.99920		3 28 40.27
.0608	.06076		.99815		.78364	71,3	.99920		3 29 00.90
.0609	.06086		.99815		.78435	71,2	.99919		3 29 21.53
0.0610	0.06096	10,0	0.99814	0,6	8.78506	71,1	9.99919	0,3	3 29 42.15
.0611	.06106		.99813		.78577	71,0	.99919		3 30 02.78
.0612	.06116		.99813		.78648	70,9	.99919		3 30 23.41
.0613	.06126		.99812		.78719	70,8	.99918		3 30 44.03
.0614	.06136		.99812		.78790	70,6	.99918		3 31 04.66
0.0615	0.06146	10,0	0.99811	0,6	8.78860	70,5	9.99918	0,3	3 31 25.29
.0616	.06156		.99810		.78931	70,4	.99918		3 31 45.91
.0617	.06166		.99810		.79001	70,3	.99917		3 32 06.54
.0618	.06176		.99809		.79071	70,2	.99917		3 32 27.17
.0619	.06186		.99808		.79141	70,1	.99917		3 32 47.79
0.0620	0.06196	10,0	0.99808	0,6	8.79211	70,0	9.99916	0,3	3 33 08.42
.0621	.06206		.99807		.79281	69,8	.99916		3 33 29.04
.0622	.06216		.99807		.79351	69,7	.99916		3 33 49.67
.0623	.06226		.99806		.79421	69,6	.99916		3 34 10.30
.0624	.06236		.99805		.79490	69,5	.99915		3 34 30.92
0.0625	0.06246	10,0	0.99805	0,6	8.79560	69,4	9.99915	0,3	3 34 51.55
.0626	.06256		.99804		.79629	69,3	.99915		3 35 12.18
.0627	.06266		.99804		.79698	69,2	.99915		3 35 32.80
.0628	.06276		.99803		.79767	69,1	.99914		3 35 53.43
.0629	.06286		.99802		.79836	69,0	.99914		3 36 14.06
0.0630	0.06296	10,0	0.99802	0,6	8.79905	68,8	9.99914	0,3	3 36 34.68
.0631	.06306		.99801		.79974	68,7	.99913		3 36 55.31
.0632	.06316		.99800		.80043	68,6	.99913		3 37 15.94
.0633	.06326		.99800		.80111	68,5	.99913		3 37 36.56
.0634	.06336		.99799		.80180	68,4	.99913		3 37 57.19
0.0635	0.06346	10,0	0.99798	0,6	8.80248	68,3	9.99912	0,3	3 38 17.82
.0636	.06356		.99798		.80316	68,2	.99912		3 38 38.44
.0637	.06366		.99797		.80385	68,1	.99912		3 38 59.07
.0638	.06376		.99797		.80453	68,0	.99912		3 39 19.69
.0639	.06386		.99796		.80521	67,9	.99911		3 39 40.32
0.0640	0.06396	10,0	0.99795	0,6	8.80588	67,8	9.99911	0,3	3 40 00.95
.0641	.06406		.99795		.80656	67,7	.99911		3 40 21.57
.0642	.06416		.99794		.80724	67,6	.99910		3 40 42.20
.0643	.06426		.99793		.80791	67,4	.99910		3 41 02.83
.0644	.06436		.99793		.80859	67,3	.99910		3 41 23.45
0.0645	0.06446	10,0	0.99792	0,6	8.80926	67,2	9.99910	0,3	3 41 44.08
.0646	.06456		.99791		.80993	67,1	.99909		3 42 04.71
.0647	.06465		.99791		.81060	67,0	.99909		3 42 25.33
.0648	.06475		.99790		.81127	66,9	.99909		3 42 45.96
.0649	.06485		.99789		.81194	66,8	.99908		3 43 06.59
0.0650	0.06495	10,0	0.99789	0,6	8.81261	66,7	9.99908	0,3	3 43 27.21
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	log $\frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u (° ′ ″)
0.0650	0.06495	10,0	0.99789	0,6	8.81261	66,7	9.99908	0,3	3 43 27.21
.0651	.06505		.99788	0,7	.81327	66,6	.99908		3 43 47.84
.0652	.06515		.99788		.81394	66,5	.99908		3 44 08.47
.0653	.06525		.99787		.81460	66,4	.99907		3 44 29.09
.0654	.06535		.99786		.81527	66,3	.99907		3 44 49.72
0.0655	0.06545	10,0	0.99786	0,7	8.81593	66,2	9.99907	0,3	3 45 10.34
.0656	.06555		.99785		.81659	66,1	.99906		3 45 30.97
.0657	.06565		.99784		.81725	66,0	.99906		3 45 51.60
.0658	.06575		.99784		.81791	65,9	.99906		3 46 12.22
.0659	.06585		.99783		.81857	65,8	.99906		3 46 32.85
0.0660	0.06595	10,0	0.99782	0,7	8.81923	65,7	9.99905	0,3	3 46 53.48
.0661	.06605		.99782		.81989	65,6	.99905		3 47 14.10
.0662	.06615		.99781		.82054	65,5	.99905		3 47 34.73
.0663	.06625		.99780		.82120	65,4	.99904		3 47 55.36
.0664	.06635		.99780		.82185	65,3	.99904		3 48 15.98
0.0665	0.06645	10,0	0.99779	0,7	8.82250	65,2	9.99904	0,3	3 48 36.61
.0666	.06655		.99778		.82315	65,1	.99904		3 48 57.24
.0667	.06665		.99778		.82380	65,0	.99903		3 49 17.86
.0668	.06675		.99777		.82445	64,9	.99903		3 49 38.49
.0669	.06685		.99776		.82510	64,8	.99903		3 49 59.12
0.0670	0.06695	10,0	0.99776	0,7	8.82575	64,7	9.99902	0,3	3 50 19.74
.0671	.06705		.99775		.82640	64,6	.99902		3 50 40.37
.0672	.06715		.99774		.82704	64,5	.99902		3 51 00.99
.0673	.06725		.99774		.82769	64,4	.99902		3 51 21.62
.0674	.06735		.99773		.82833	64,3	.99901		3 51 42.25
0.0675	0.06745	10,0	0.99772	0,7	8.82897	64,2	9.99901	0,3	3 52 02.87
.0676	.06755		.99772		.82962	64,1	.99901		3 52 23.50
.0677	.06765		.99771		.83026	64,1	.99900		3 52 44.13
.0678	.06775		.99770		.83090	64,0	.99900		3 53 04.75
.0679	.06785		.99770		.83154	63,9	.99900		3 53 25.38
0.0680	0.06795	10,0	0.99769	0,7	8.83217	63,8	9.99900	0,3	3 53 46.01
.0681	.06805		.99768		.83281	63,7	.99899		3 54 06.63
.0682	.06815		.99768		.83345	63,6	.99899		3 54 27.26
.0683	.06825		.99767		.83408	63,5	.99899		3 54 47.89
.0684	.06835		.99766		.83472	63,4	.99898		3 55 08.51
0.0685	0.06845	10,0	0.99765	0,7	8.83535	63,3	9.99898	0,3	3 55 29.14
.0686	.06855		.99765		.83598	63,2	.99898		3 55 49.77
.0687	.06865		.99764		.83662	63,1	.99897		3 56 10.39
.0688	.06875		.99763		.83725	63,0	.99897		3 56 31.02
.0689	.06885		.99763		.83788	62,9	.99897		3 56 51.65
0.0690	0.06895	10,0	0.99762	0,7	8.83850	62,8	9.99897	0,3	3 57 12.27
.0691	.06905		.99761		.83913	62,8	.99896		3 57 32.90
.0692	.06914		.99761		.83976	62,7	.99896		3 57 53.52
.0693	.06924		.99760		.84039	62,6	.99896		3 58 14.15
.0694	.06934		.99759		.84101	62,5	.99895		3 58 34.78
0.0695	0.06944	10,0	0.99759	0,7	8.84164	62,4	9.99895	0,3	3 58 55.40
.0696	.06954		.99758		.84226	62,3	.99895		3 59 16.03
.0697	.06964		.99757		.84288	62,2	.99894		3 59 36.66
.0698	.06974		.99756		.84350	62,1	.99894		3 59 57.28
.0699	.06984		.99756		.84412	62,0	.99894		4 00 17.91
0.0700	0.06994	10,0	0.99755	0,7	.84474	61,9	9.99894	0,3	4 00 38.54
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
0.0700	0.06994	10,0	0.99755	0,7	8.84474	61,9	9.99894	0,3	4° 00′ 38″.54
.0701	.07004		.99754		.84536	61,9	.99893		4 00 59.16
.0702	.07014		.99754		.84598	61,8	.99893		4 01 19.79
.0703	.07024		.99753		.84660	61,7	.99893		4 01 40.42
.0704	.07034		.99752		.84721	61,6	.99892		4 02 01.04
0.0705	0.07044	10,0	0.99752	0,7	8.84783	61,5	9.99892	0,3	4 02 21.67
.0706	.07054		.99751		.84844	61,4	.99892		4 02 42.30
.0707	.07064		.99750		.84906	61,3	.99891		4 03 02.92
.0708	.07074		.99749		.84967	61,2	.99891		4 03 23.55
.0709	.07084		.99749		.85028	61,2	.99891		4 03 44.17
0.0710	0.07094	10,0	0.99748	0,7	8.85089	61,1	9.99890	0,3	4 04 04.80
.0711	.07104		.99747		.85150	61,0	.99890		4 04 25.43
.0712	.07114		.99747		.85211	60,9	.99890		4 04 46.05
.0713	.07124		.99746		.85272	60,8	.99890		4 05 06.68
.0714	.07134		.99745		.85333	60,7	.99889		4 05 27.31
0.0715	0.07144	10,0	0.99744	0,7	8.85394	60,6	9.99889	0,3	4 05 47.93
.0716	.07154		.99744		.85454	60,6	.99889		4 06 08.56
.0717	.07164		.99743		.85515	60,5	.99888		4 06 29.19
.0718	.07174		.99742		.85575	60,4	.99888		4 06 49.81
.0719	.07184		.99742		.85635	60,3	.99888		4 07 10.44
0.0720	0.07194	10,0	0.99741	0,7	8.85696	60,2	9.99887	0,3	4 07 31.07
.0721	.07204		.99740		.85756	60,1	.99887		4 07 51.69
.0722	.07214		.99739		.85816	60,0	.99887		4 08 12.32
.0723	.07224		.99739		.85876	60,0	.99886		4 08 32.95
.0724	.07234		.99738		.85936	59,9	.99886		4 08 53.57
0.0725	0.07244	10,0	0.99737	0,7	8.85996	59,8	9.99886	0,3	4 09 14.20
.0726	.07254		.99737		.86056	59,7	.99885		4 09 34.82
.0727	.07264		.99736		.86115	59,6	.99885		4 09 55.45
.0728	.07274		.99735		.86175	59,6	.99885		4 10 16.08
.0729	.07284		.99734		.86234	59,5	.99884		4 10 36.70
0.0730	0.07294	10,0	0.99734	0,7	8.86294	59,4	9.99884	0,3	4 10 57.33
.0731	.07303		.99733		.86353	59,3	.99884		4 11 17.96
.0732	.07313		.99732		.86412	59,2	.99884		4 11 38.58
.0733	.07323		.99731		.86472	59,1	.99883		4 11 59.21
.0734	.07333		.99731		.86531	59,1	.99883		4 12 19.84
0.0735	0.07343	10,0	0.99730	0,7	8.86590	59,0	9.99883	0,3	4 12 40.46
.0736	.07353		.99729		.86649	58,9	.99882		4 13 01.09
.0737	.07363		.99729		.86707	58,8	.99882		4 13 21.72
.0738	.07373		.99728		.86766	58,7	.99882		4 13 42.34
.0739	.07383		.99727		.86825	58,7	.99881		4 14 02.97
0.0740	0.07393	10,0	0.99726	0,7	8.86884	58,6	9.99881	0,3	4 14 23.60
.0741	.07403		.99726		.86942	58,5	.99881		4 14 44.22
.0742	.07413		.99725		.87001	58,4	.99880		4 15 04.85
.0743	.07423		.99724		.87059	58,3	.99880		4 15 25.48
.0744	.07433		.99723		.87117	58,3	.99880		4 15 46.10
0.0745	0.07443	10,0	0.99723	0,7	8.87175	58,2	9.99879	0,3	4 16 06.73
.0746	.07453		.99722		.87234	58,1	.99879		4 16 27.35
.0747	.07463		.99721		.87292	58,0	.99879		4 16 47.98
.0748	.07473		.99720		.87350	58,0	.99878		4 17 08.61
.0749	.07483		.99720		.87408	57,9	.99878		4 17 29.23
0.0750	0.07493	10,0	0.99719	0,7	8.87465	57,8	9.99878	0,3	4 17 49.86
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	$\log \frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u (° ′ ″)
0.0750	0.07493	10,0	0.99719	0,7	8.87465	57,8	9.99878	0,3	4 17 49.86
.0751	.07503		.99718	0,8	.87523	57,7	.99877		4 18 10.49
.0752	.07513		.99717		.87581	57,6	.99877		4 18 31.11
.0753	.07523		.99717		.87638	57,6	.99877		4 18 51.74
.0754	.07533		.99716		.87695	57,5	.99876		4 19 12.37
0.0755	0.07543	10,0	0.99715	0,8	8.87753	57,4	9.99876	0,3	4 19 32.99
.0756	.07553		.99714		.87811	57,3	.99876		4 19 53.62
.0757	.07563		.99714		.87868	57,3	.99875		4 20 14.25
.0758	.07573		.99713		.87925	57,2	.99875		4 20 34.87
.0759	.07583		.99712		.87982	57,1	.99875		4 20 55.50
0.0760	0.07593	10,0	0.99711	0,8	8.88040	57,0	9.99874	0,3	4 21 16.13
.0761	.07603		.99711		.88097	57,0	.99874		4 21 36.75
.0762	.07613		.99710		.88153	56,9	.99874		4 21 57.38
.0763	.07623		.99709		.88210	56,8	.99873		4 22 18.00
.0764	.07633		.99708		.88267	56,7	.99873		4 22 38.63
0.0765	0.07643	10,0	0.99708	0,8	8.88324	56,7	9.99873	0,3	4 22 59.26
.0766	.07653		.99707		.88380	56,6	.99872		4 23 19.88
.0767	.07662		.99706		.88437	56,5	.99872		4 23 40.51
.0768	.07672		.99705		.88493	56,4	.99872		4 24 01.14
.0769	.07682		.99704		.88550	56,4	.99871		4 24 21.76
0.0770	0.07692	10,0	0.99704	0,8	8.88606	56,3	9.99871	0,3	4 24 42.39
.0771	.07702		.99703		.88662	56,2	.99871		4 25 03.02
.0772	.07712		.99702		.88719	56,1	.99870		4 25 23.64
.0773	.07722		.99701		.88775	56,1	.99870		4 25 44.27
.0774	.07732		.99701		.88831	56,0	.99870		4 26 04.90
0.0775	0.07742	10,0	0.99700	0,8	8.88887	55,9	9.99869	0,3	4 26 25.52
.0776	.07752		.99699		.88943	55,9	.99869		4 26 46.15
.0777	.07762		.99698		.88998	55,8	.99869		4 27 06.78
.0778	.07772		.99698		.89054	55,7	.99868		4 27 27.40
.0779	.07782		.99697		.89110	55,6	.99868		4 27 48.03
0.0780	0.07792	10,0	0.99696	0,8	8.89165	55,6	9.99868	0,3	4 28 08.65
.0781	.07802		.99695		.89221	55,5	.99867		4 28 29.28
.0782	.07812		.99694		.89276	55,4	.99867		4 28 49.91
.0783	.07822		.99694		.89332	55,4	.99867		4 29 10.53
.0784	.07832		.99693		.89387	55,3	.99866		4 29 31.16
0.0785	0.07842	10,0	0.99692	0,8	8.89442	55,2	9.99866	0,3	4 29 51.79
.0786	.07852		.99691		.89498	55,1	.99866		4 30 12.41
.0787	.07862		.99690		.89553	55,1	.99865		4 30 33.04
.0788	.07872		.99690		.89608	55,0	.99865		4 30 53.67
.0789	.07882		.99689		.89663	54,9	.99865		4 31 14.29
0.0790	0.07892	10,0	0.99688	0,8	8.89718	54,9	9.99864	0,3	4 31 34.92
.0791	.07902		.99687		.89772	54,8	.99864		4 31 55.55
.0792	.07912		.99687		.89827	54,7	.99864		4 32 16.17
.0793	.07922		.99686		.89882	54,7	.99863		4 32 36.80
.0794	.07932		.99685		.89936	54,6	.99863		4 32 57.43
0.0795	0.07942	10,0	0.99684	0,8	8.89991	54,6	9.99863	0,3	4 33 18.05
.0796	.07952		.99683		.90045	54,4	.99862		4 33 38.68
.0797	.07962		.99683		.90100	54,4	.99862		4 33 59.31
.0798	.07972		.99682		.90154	54,3	.99862		4 34 19.93
.0799	.07982		.99681		.90208	54,2	.99861		4 34 40.56
0.0800	0.07991	10,0	0.99680	0,8	8.90263	54,2	9.99861	0,3	4 35 01.18
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u (° ′ ″)
0.0800	0.07991	10,0	0.99680	0,8	8.90263	54,2	9.99861	0,3	4 35 01.18
.0801	.08001		.99679		.90317	54,1	.99861		4 35 21.81
.0802	.08011		.99679		.90371	54,0	.99860		4 35 42.44
.0803	.08021		.99678		.90425	54,0	.99860		4 36 03.06
.0804	.08031		.99677		.90479	53,9	.99859		4 36 23.69
0.0805	0.08041	10,0	0.99676	0,8	8.90533	53,8	9.99859	0,4	4 36 44.32
.0806	.08051		.99675		.90586	53,8	.99859		4 37 04.94
.0807	.08061		.99675		.90640	53,7	.99858		4 37 25.57
.0808	.08071		.99674		.90694	53,6	.99858		4 37 46.20
.0809	.08081		.99673		.90747	53,6	.99858		4 38 06.82
0.0810	0.08091	10,0	0.99672	0,8	8.90801	53,5	9.99857	0,4	4 38 27.45
.0811	.08101		.99671		.90854	53,4	.99857		4 38 48.08
.0812	.08111		.99671		.90908	53,4	.99857		4 39 08.70
.0813	.08121		.99670		.90961	53,3	.99856		4 39 29.33
.0814	.08131		.99669		.91014	53,2	.99856		4 39 49.96
0.0815	0.08141	10,0	0.99668	0,8	8.91068	53,2	9.99856	0,4	4 40 10.58
.0816	.08151		.99667		.91121	53,1	.99855		4 40 31.21
.0817	.08161		.99666		.91174	53,0	.99855		4 40 51.83
.0818	.08171		.99666		.91227	53,0	.99855		4 41 12.46
.0819	.08181		.99665		.91280	52,9	.99854		4 41 33.09
0.0820	0.08191	10,0	0.99664	0,8	8.91333	52,8	9.99854	0,4	4 41 53.71
.0821	.08201		.99663		.91386	52,8	.99853		4 42 14.34
.0822	.08211		.99662		.91438	52,7	.99853		4 42 34.97
.0823	.08221		.99662		.91491	52,7	.99853		4 42 55.59
.0824	.08231		.99661		.91544	52,6	.99852		4 43 16.22
0.0825	0.08241	10,0	0.99660	0,8	8.91596	52,5	9.99852	0,4	4 43 36.85
.0826	.08251		.99659		.91649	52,5	.99852		4 43 57.47
.0827	.08261		.99658		.91701	52,4	.99851		4 44 18.10
.0828	.08271		.99657		.91753	52,3	.99851		4 44 38.73
.0829	.08281		.99657		.91806	52,3	.99851		4 44 59.35
0.0830	0.08290	10,0	0.99656	0,8	8.91858	52,2	9.99850	0,4	4 45 19.98
.0831	.08300		.99655		.91910	52,1	.99850		4 45 40.61
.0832	.08310		.99654		.91962	52,1	.99850		4 46 01.23
.0833	.08320		.99653		.92014	52,0	.99849		4 46 21.86
.0834	.08330		.99652		.92066	52,0	.99849		4 46 42.48
0.0835	0.08340	10,0	0.99652	0,8	8.92118	51,9	9.99848	0,4	4 47 03.11
.0836	.08350		.99651		.92170	51,8	.99848		4 47 23.74
.0837	.08360		.99650		.92222	51,8	.99848		4 47 44.36
.0838	.08370		.99649		.92274	51,7	.99847		4 48 04.99
.0839	.08380		.99648		.92325	51,6	.99847		4 48 25.62
0.0840	0.08390	10,0	0.99647	0,8	8.92377	51,6	9.99847	0,4	4 48 46.24
.0841	.08400		.99647		.92428	51,5	.99846		4 49 06.87
.0842	.08410		.99646		.92480	51,5	.99846		4 49 27.50
.0843	.08420		.99645		.92531	51,4	.99846		4 49 48.12
.0844	.08430		.99644		.92583	51,3	.99845		4 50 08.75
0.0845	0.08440	10,0	0.99643	0,8	8.92634	51,3	9.99845	0,4	4 50 29.38
.0846	.08450		.99642		.92685	51,2	.99844		4 50 50.00
.0847	.08460		.99642		.92736	51,2	.99844		4 51 10.63
.0848	.08470		.99641		.92788	51,1	.99844		4 51 31.26
.0849	.08480		.99640		.92839	51,0	.99843		4 51 51.88
0.0850	0.08490	10,0	0.99639	0,8	8.92890	51,0	9.99843	0,4	4 52 12.51
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
									° ′ ″
0.0850	0.08490	10,0	0.99639	0,8	8.92890	51,0	9.99843	0,4	4 52 12.51
.0851	.08500		.99638	0,8	.92941	50,9	.99843		4 52 33.14
.0852	.08510		.99637	0,9	.92991	50,9	.99842		4 52 53.76
.0853	.08520		.99636		.93042	50,8	.99842		4 53 14.39
.0854	.08530		.99636		.93093	50,7	.99841		4 53 35.01
0.0855	0.08540	10,0	0.99635	0,9	8.93144	50,7	9.99841	0,4	4 53 55.64
.0856	.08550		.99634		.93194	50,6	.99841		4 54 16.27
.0857	.08560		.99633		.93245	50,6	.99840		4 54 36.89
.0858	.08569		.99632		.93295	50,5	.99840		4 54 57.52
.0859	.08579		.99631		.93346	50,4	.99840		4 55 18.15
0.0860	0.08589	10,0	0.99630	0,9	8.93396	50,4	9.99839	0,4	4 55 38.77
.0861	.08599		.99630		.93447	50,3	.99839		4 55 59.40
.0862	.08609		.99629		.93497	50,3	.99838		4 56 20.03
.0863	.08619		.99628		.93547	50,2	.99838		4 56 40.65
.0864	.08629		.99627		.93597	50,1	.99838		4 57 01.28
0.0865	0.08639	10,0	0.99626	0,9	8.93647	50,1	9.99837	0,4	4 57 21.91
.0866	.08649		.99625		.93697	50,0	.99837		4 57 42.53
.0867	.08659		.99624		.93747	50,0	.99837		4 58 03.16
.0868	.08669		.99624		.93797	49,9	.99836		4 58 23.79
.0869	.08679		.99623		.93847	49,9	.99836		4 58 44.41
0.0870	0.08689	10,0	0.99622	0,9	8.93897	49,8	9.99835	0,4	4 59 05.04
.0871	.08699		.99621		.93947	49,7	.99835		4 59 25.66
.0872	.08709		.99620		.93997	49,7	.99835		4 59 46.29
.0873	.08719		.99619		.94046	49,6	.99834		5 00 06.92
.0874	.08729		.99618		.94096	49,6	.99834		5 00 27.54
0.0875	0.08739	10,0	0.99617	0,9	8.94145	49,5	9.99834	0,4	5 00 48.17
.0876	.08749		.99617		.94195	49,5	.99833		5 01 08.80
.0877	.08759		.99616		.94244	49,4	.99833		5 01 29.42
.0878	.08769		.99615		.94294	49,3	.99832		5 01 50.05
.0879	.08779		.99614		.94343	49,3	.99832		5 02 10.68
0.0880	0.08789	10,0	0.99613	0,9	8.94392	49,2	9.99832	0,4	5 02 31.30
.0881	.08799		.99612		.94441	49,2	.99831		5 02 51.93
.0882	.08809		.99611		.94491	49,1	.99831		5 03 12.56
.0883	.08819		.99610		.94540	49,1	.99830		5 03 33.18
.0884	.08828		.99610		.94589	49,0	.99830		5 03 53.81
0.0885	0.08838	10,0	0.99609	0,9	8.94638	48,9	9.99830	0,4	5 04 14.44
.0886	.08848		.99608		.94687	48,9	.99829		5 04 35.06
.0887	.08858		.99607		.94735	48,8	.99829		5 04 55.69
.0888	.08868		.99606		.94784	48,8	.99829		5 05 16.31
.0889	.08878		.99605		.94833	48,7	.99828		5 05 36.94
0.0890	0.08888	10,0	0.99604	0,9	8.94882	48,7	9.99828	0,4	5 05 57.57
.0891	.08898		.99603		.94930	48,6	.99827		5 06 18.19
.0892	.08908		.99602		.94979	48,6	.99827		5 06 38.82
.0893	.08918		.99602		.95027	48,5	.99827		5 06 59.45
.0894	.08928		.99601		.95076	48,4	.99826		5 07 20.07
0.0895	0.08938	10,0	0.99600	0,9	8.95124	48,4	9.99826	0,4	5 07 40.70
.0896	.08948		.99599		.95173	48,3	.99825		5 08 01.33
.0897	.08958		.99598		.95221	48,3	.99825		5 08 21.95
.0898	.08968		.99597		.95269	48,2	.99825		5 08 42.58
.0899	.08978		.99596		.95317	48,2	.99824		5 09 03.21
0.0900	0.08988	10,0	0.99595	0,9	8.95366	48,1	9.99824	0,4	5 09 23.83
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	$\log \frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u (° ′ ″)
0.0900	0.08988	10,0	0.99595	0,9	8.95366	48,1	9.99824	0,4	5 09 23.83
.0901	.08998		.99594		.95414	48,1	.99823		5 09 44.46
.0902	.09008		.99593		.95462	48,0	.99823		5 10 05.09
.0903	.09018		.99593		.95510	48,0	.99823		5 10 25.71
.0904	.09028		.99592		.95558	47,9	.99822		5 10 46.34
0.0905	0.09038	10,0	0.99591	0,9	8.95606	47,9	9.99822	0,4	5 11 06.96
.0906	.09048		.99590		.95653	47,8	.99822		5 11 27.59
.0907	.09058		.99589		.95701	47,8	.99821		5 11 48.22
.0908	.09068		.99588		.95749	47,7	.99821		5 12 08.84
.0909	.09077		.99587		.95797	47,6	.99820		5 12 29.47
0.0910	0.09087	10,0	0.99586	0,9	8.95844	47,6	9.99820	0,4	5 12 50.10
.0911	.09097		.99585		.95892	47,5	.99820		5 13 10.72
.0912	.09107		.99584		.95939	47,5	.99819		5 13 31.35
.0913	.09117		.99584		.95987	47,4	.99819		5 13 51.98
.0914	.09127		.99583		.96034	47,4	.99818		5 14 12.60
0.0915	0.09137	10,0	0.99582	0,9	8.96081	47,3	9.99818	0,4	5 14 33.23
.0916	.09147		.99581		.96129	47,3	.99818		5 14 53.86
.0917	.09157		.99580		.96176	47,2	.99817		5 15 14.48
.0918	.09167		.99579		.96223	47,2	.99817		5 15 35.11
.0919	.09177		.99578		.96270	47,1	.99816		5 15 55.74
0.0920	0.09187	10,0	0.99577	0,9	8.96317	47,1	9.99816	0,4	5 16 16.36
.0921	.09197		.99576		.96365	47,0	.99816		5 16 36.99
.0922	.09207		.99575		.96412	47,0	.99815		5 16 57.62
.0923	.09217		.99574		.96458	46,9	.99815		5 17 18.24
.0924	.09227		.99573		.96505	46,9	.99814		5 17 38.87
0.0925	0.09237	10,0	0.99572	0,9	8.96552	46,8	9.99814	0,4	5 17 59.49
.0926	.09247		.99572		.96599	46,8	.99814		5 18 20.12
.0927	.09257		.99571		.96646	46,7	.99813		5 18 40.75
.0928	.09267		.99570		.96692	46,7	.99813		5 19 01.37
.0929	.09277		.99569		.96739	46,6	.99812		5 19 22.00
0.0930	0.09287	10,0	0.99568	0,9	8.96786	46,6	9.99812	0,4	5 19 42.63
.0931	.09297		.99567		.96832	46,5	.99812		5 20 03.25
.0932	.09307		.99566		.96879	46,5	.99811		5 20 23.88
.0933	.09316		.99565		.96925	46,4	.99811		5 20 44.51
.0934	.09326		.99564		.96972	46,4	.99810		5 21 05.13
0.0935	0.09336	10,0	0.99563	0,9	8.97018	46,3	9.99810	0,4	5 21 25.76
.0936	.09346		.99562		.97064	46,3	.99809		5 21 46.39
.0937	.09356		.99561		.97110	46,2	.99809		5 22 07.01
.0938	.09366		.99560		.97157	46,2	.99809		5 22 27.64
.0939	.09376		.99559		.97203	46,1	.99808		5 22 48.27
0.0940	0.09386	10,0	0.99559	0,9	8.97249	46,1	9.99808	0,4	5 23 08.89
.0941	.09396		.99558		.97295	46,0	.99807		5 23 29.52
.0942	.09406		.99557		.97341	46,0	.99807		5 23 50.14
.0943	.09416		.99556		.97387	45,9	.99807		5 24 10.77
.0944	.09426		.99555		.97433	45,9	.99806		5 24 31.40
0.0945	0.09436	10,0	0.99554	0,9	8.97479	45,8	9.99806	0,4	5 24 52.02
.0946	.09446		.99553		.97524	45,8	.99805		5 25 12.65
.0947	.09456		.99552		.97570	45,7	.99805		5 25 33.28
.0948	.09466		.99551		.97616	45,7	.99805		5 25 53.90
.0949	.09476		.99550		.97661	45,6	.99804		5 26 14.53
0.0950	0.09486	10,0	0.99549	0,9	8.97707	45,6	9.99804	0,4	5 26 35.16
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
0.0950	0.09486	10,0	0.99549	0,9	8.97707	45,6	9.99804	0,4	5 26 35.16
.0951	.09496		.99548	0,9	.97753	45,5	.99803		5 26 55.78
.0952	.09506		.99547	1,0	.97798	45,5	.99803		5 27 16.41
.0953	.09516		.99546		.97844	45,4	.99802		5 27 37.04
.0954	.09526		.99545		.97889	45,4	.99802		5 27 57.66
0.0955	0.09535	10,0	0.99544	1,0	8.97934	45,3	9.99802	0,4	5 28 18.29
.0956	.09545		.99543		.97980	45,3	.99801		5 28 38.92
.0957	.09555		.99542		.98025	45,2	.99801		5 28 59.54
.0958	.09565		.99541		.98070	45,2	.99800		5 29 20.17
.0959	.09575		.99541		98115	45,1	.99800		5 29 40.79
0.0960	0.09585	10,0	0.99540	1,0	8.98160	45,1	9.99800	0,4	5 30 01.42
.0961	.09595		.99539		.98205	45,1	.99799		5 30 22.05
.0962	.09605		.99538		.98251	45,0	.99799		5 30 42.67
.0963	.09615		.99537		.98295	45,0	.99798		5 31 03.30
.0964	.09625		.99536		.98340	44,9	.99798		5 31 23.93
0.0965	0.09635	10,0	0.99535	1,0	8.98385	44,9	9.99797	0,4	5 31 44.55
.0966	.09645		.99534		.98430	44,8	.99797		5 32 05.18
.0967	.09655		.99533		.98475	44,8	.99797		5 32 25.81
.0968	.09665		.99532		.98520	44,7	.99796		5 32 46.43
.0969	.09675		.99531		.98564	44,7	.99796		5 33 07.06
0.0970	0.09685	10,0	0.99530	1,0	8.98609	44,6	9.99795	0,4	5 33 27.69
.0971	.09695		.99529		.98654	44,6	.99795		5 33 48.31
.0972	.09705		.99528		.98698	44,5	.99795		5 34 08.94
.0973	.09715		.99527		.98743	44,5	.99794		5 34 29.57
.0974	.09725		.99526		.98787	44,4	.99794		5 34 50.19
0.0975	0.09735	10,0	0.99525	1,0	8.98832	44,4	9.99793	0,4	5 35 10.82
.0976	.09745		.99524		.98876	44,4	.99793		5 35 31.45
.0977	.09754		.99523		.98920	44,3	.99792		5 35 52.07
.0978	.09764		.99522		.98965	44,3	.99792		5 36 12.70
.0979	.09774		.99521		.99009	44,2	.99792		5 36 33.32
0.0980	0.09784	10,0	0.99520	1,0	8.99053	44,2	9.99791	0,4	5 36 53.95
.0981	.09794		.99519		.99097	44,1	.99791		5 37 14.58
.0982	.09804		.99518		.99141	44,1	.99790		5 37 35.20
.0983	.09814		.99517		.99185	44,0	.99790		5 37 55.83
.0984	.09824		.99516		.99229	44,0	.99789		5 38 16.46
0.0985	0.09834	10,0	0.99515	1,0	8.99273	43,9	9.99789	0,4	5 38 37.08
.0986	.09844		.99514		.99317	43,9	.99789		5 38 57.71
.0987	.09854		.99513		.99361	43,9	.99788		5 39 18.34
.0988	.09864		.99512		.99405	43,8	.99788		5 39 38.96
.0989	.09874		.99511		.99449	43,8	.99787		5 39 59.59
0.0990	0.09884	10,0	0.99510	1,0	8.99493	43,7	9.99787	0,4	5 40 20.22
.0991	.09894		.99509		.99536	43,7	.99786		5 40 40.84
.0992	.09904		.99508		.99580	43,6	.99786		5 41 01.47
.0993	.09914		.99507		.99624	43,6	.99786		5 41 22.10
.0994	.09924		.99506		.99667	43,5	.99785		5 41 42.72
0.0995	0.09934	10,0	0.99505	1,0	8.99711	43,5	9.99785	0,4	5 42 03.35
.0996	.09944		.99504		.99754	43,5	.99784		5 42 23.97
.0997	.09953		.99503		.99798	43,4	.99784		5 42 44.60
.0998	.09963		.99502		.99841	43,4	.99783		5 43 05.23
.0999	.09973		.99501		.99884	43,3	.99783		5 43 25.85
0.1000	0.09983	10,0	0.99500	1,0	8.99928	43,3	9.99782	0,4	5 43 46.48
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u
									° ′ ″
0.100	0.09983	99,5	0.99500	10,0	8.99928	432,8	9.99782	4,4	5 43 46.48
.101	.10083	99,5	.99490	10,1	9.00358	428,5	.99778	4,4	5 47 12.75
.102	.10182	99,5	.99480	10,2	.00785	424,3	.99774	4,4	5 50 39.01
.103	.10282	99,5	.99470	10,3	.01207	420,2	.99769	4,5	5 54 05.28
.104	.10381	99,5	.99460	10,4	.01625	416,1	.99765	4,5	5 57 31.54
0.105	0.10481	99,4	0.99449	10,5	9.02039	412,1	9.99760	4,6	6 00 57.80
.106	.10580	99,4	.99439	10,6	.02449	408,2	.99756	4,6	6 04 24.07
.107	.10680	99,4	.99428	10,7	.02855	404,3	.99751	4,7	6 07 50.33
.108	.10779	99,4	.99417	10,8	.03258	400,6	.99746	4,7	6 11 16.60
.109	.10878	99,4	.99407	10,9	.03657	396,9	.99741	4,8	6 14 42.86
0.110	0.10978	99,4	0.99396	11,0	9.04052	393,2	9.99737	4,8	6 18 09.13
.111	.11077	99,4	.99385	11,1	.04443	389,6	.99732	4,8	6 21 35.39
.112	.11177	99,4	.99373	11,2	.04831	386,1	.99727	4,9	6 25 01.66
.113	.11276	99,4	.99362	11,3	.05215	382,7	.99722	4,9	6 28 27.92
.114	.11375	99,4	.99351	11,4	.05596	379,3	.99717	5,0	6 31 54.19
0.115	0.11475	99,3	0.99339	11,5	9.05974	376,0	9.99712	5,0	6 35 20.45
.116	.11574	99,3	.99328	11,6	.06348	372,7	.99707	5,1	6 38 46.72
.117	.11673	99,3	.99316	11,7	.06719	369,5	.99702	5,1	6 42 12.98
.118	.11773	99,3	.99305	11,8	.07087	366,3	.99697	5,1	6 45 39.25
.119	.11872	99,3	.99293	11,9	.07452	363,2	.99692	5,2	6 49 05.51
0.120	0.11971	99,3	0.99281	12,0	9.07814	360,2	9.99687	5,2	6 52 31.78
.121	.12070	99,3	.99269	12,1	.08173	357,2	.99681	5,3	6 55 58.04
.122	.12170	99,3	.99257	12,2	.08528	354,2	.99676	5,3	6 59 24.31
.123	.12269	99,2	.99245	12,3	.08881	351,3	.99671	5,4	7 02 50.57
.124	.12368	99,2	.99232	12,4	.09231	348,4	.99665	5,4	7 06 16.84
0.125	0.12467	99,2	0.99220	12,5	9.09578	345,6	9.99660	5,5	7 09 43.10
.126	.12567	99,2	.99207	12,6	.09922	342,9	.99654	5,5	7 13 09.37
.127	.12666	99,2	.99195	12,7	.10264	340,1	.99649	5,5	7 16 35.63
.128	.12765	99,2	.99182	12,8	.10602	337,4	.99643	5,6	7 20 01.90
.129	.12864	99,2	.99169	12,9	.10938	334,8	.99638	5,6	7 23 28.16
0.130	0.12963	99,2	0.99156	13,0	9.11272	332,2	9.99632	5,7	7 26 54.42
.131	.13063	99,1	.99143	13,1	.11603	329,6	.99626	5,7	7 30 20.69
.132	.13162	99,1	.99130	13,2	.11931	327,1	.99621	5,8	7 33 46.95
.133	.13261	99,1	.99117	13,3	.12257	324,6	.99615	5,8	7 37 13.22
.134	.13360	99,1	.99104	13,4	.12580	322,2	.99609	5,9	7 40 39.48
0.135	0.13459	99,1	0.99090	13,5	9.12901	319,7	9.99603	5,9	7 44 05.75
.136	.13558	99,1	.99077	13,6	.13220	317,4	.99597	5,9	7 47 32.01
.137	.13657	99,1	.99063	13,7	.13536	315,0	.99591	6,0	7 50 58.28
.138	.13756	99,0	.99049	13,8	.13850	312,7	.99585	6,0	7 54 24.54
.139	.13855	99,0	.99036	13,9	.14162	310,4	.99579	6,1	7 57 50.81
0.140	0.13954	99,0	0.99022	14,0	9.14471	308,2	9.99573	6,1	8 01 17.07
.141	.14053	99,0	.99008	14,1	.14778	306,0	.99567	6,2	8 04 43.34
.142	.14152	99,0	.98993	14,2	.15083	303,8	.99561	6,2	8 08 09.60
.143	.14251	99,0	.98979	14,3	.15385	301,6	.99554	6,3	8 11 35.87
.144	.14350	99,0	.98965	14,4	.15686	299,5	.99548	6,3	8 15 02.13
0.145	0.14449	99,0	0.98951	14,4	9.15985	297,4	9.99542	6,3	8 18 28.40
.146	.14548	98,9	.98936	14,5	.16281	295,3	.99535	6,4	8 21 54.66
.147	.14647	98,9	.98921	14,6	.16575	293,3	.99529	6,4	8 25 20.93
.148	.14746	98,9	.98907	14,7	.16868	291,3	.99523	6,5	8 28 47.19
.149	.14845	98,9	.98892	14,8	.17158	289,3	.99516	6,5	8 32 13.46
0.150	0.14944	98,9	0.98877	14,9	9.17446	287,4	9.99510	6,6	8 35 39.72
u	−i sinh iu	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log\frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u ° ′ ″
0.150	0.14944	98,9	0.98877	14,9	9.17446	287,4	9.99510	6,6	8 35 39.72
.151	.15043	98,9	.98862	15,0	.17733	285,4	.99503	6,6	8 39 05.99
.152	.15142	98,8	.98847	15,1	.18017	283,5	.99496	6,7	8 42 32.25
.153	.15240	98,8	.98832	15,2	.18300	281,6	.99490	6,7	8 45 58.52
.154	.15339	98,8	.98817	15,3	.18580	279,8	.99483	6,7	8 49 24.78
0.155	0.15438	98,8	0.98801	15,4	9.18859	277,9	9.99476	6,8	8 52 51.04
.156	.15537	98,8	.98786	15,5	.19136	276,1	.99469	6,8	8 56 17.31
.157	.15636	98,8	.98770	15,6	.19411	274,3	.99463	6,9	8 59 43.57
.158	.15734	98,8	.98754	15,7	.19685	272,6	.99456	6,9	9 03 09.84
.159	.15833	98,7	.98739	15,8	.19957	270,8	.99449	7,0	9 06 36.10
0.160	0.15932	98,7	0.98723	15,9	9.20227	269,1	9.99442	7,0	9 10 02.37
.161	.16031	98,7	.98707	16,0	.20495	267,4	.99435	7,1	9 13 28.63
.162	.16129	98,7	.98691	16,1	.20761	265,7	.99428	7,1	9 16 54.90
.163	.16228	98,7	.98674	16,2	.21026	264,1	.99420	7,1	9 20 21.16
.164	.16327	98,7	.98658	16,3	.21290	262,4	.99413	7,2	9 23 47.43
0.165	0.16425	98,6	0.98642	16,4	9.21551	260,8	9.99406	7,2	9 27 13.69
.166	.16524	98,6	.98625	16,5	.21811	259,2	.99399	7,3	9 30 39.96
.167	.16622	98,6	.98609	16,6	.22070	257,6	.99392	7,3	9 34 06.22
.168	.16721	98,6	.98592	16,7	.22326	256,1	.99384	7,4	9 37 32.49
.169	.16820	98,6	.98575	16,8	.22582	254,5	.99377	7,4	9 40 58.75
0.170	0.16918	98,6	0.98558	16,9	9.22836	253,0	9.99369	7,5	9 44 25.02
.171	.17017	98,5	.98542	17,0	.23088	251,5	.99362	7,5	9 47 51.28
.172	.17115	98,5	.98524	17,1	.23338	250,0	.99354	7,5	9 51 17.55
.173	.17214	98,5	.98507	17,2	.23588	248,5	.99347	7,6	9 54 43.81
.174	.17312	98,5	.98490	17,3	.23836	247,1	.99339	7,6	9 58 10.08
0.175	0.17411	98,5	0.98473	17,4	9.24082	245,6	9.99332	7,7	10 01 36.34
.176	.17509	98,5	.98455	17,5	.24327	244,2	.99324	7,7	10 05 02.61
.177	.17608	98,4	.98438	17,6	.24570	242,8	.99316	7,8	10 08 28.87
.178	.17706	98,4	.98420	17,7	.24812	241,4	.99308	7,8	10 11 55.14
.179	.17805	98,4	.98402	17,8	.25053	240,0	.99300	7,9	10 15 21.40
0.180	0.17903	98,4	0.98384	17,9	9.25292	238,7	9.99293	7,9	10 18 47.67
.181	.18001	98,4	.98366	18,0	.25530	237,3	.99285	7,9	10 22 13.93
.182	.18100	98,3	.98348	18,1	.25767	236,0	.99277	8,0	10 25 40.19
.183	.18198	98,3	.98330	18,2	.26002	234,7	.99269	8,0	10 29 06.46
.184	.18296	98,3	.98312	18,3	.26236	233,4	.99261	8,1	10 32 32.72
.0185	0.18395	98,3	0.98294	18,4	9.26469	232,1	9.99253	8,1	10 35 58.99
.186	.18493	98,3	.98275	18,5	.26701	230,8	.99244	8,2	10 39 25.25
.187	.18591	98,3	.98257	18,6	.26931	229,5	.99236	8,2	10 42 51.52
.188	.18689	98,2	.98238	18,7	.27160	228,3	.99228	8,3	10 46 17.78
.189	.18788	98,2	.98219	18,8	.27387	227,0	.99220	8,3	10 49 44.05
0.190	0.18886	98,2	0.98200	18,9	9.27614	225,8	9.99211	8,4	10 53 10.31
.191	.18984	98,2	.98181	19,0	.27839	224,6	.99203	8,4	10 56 36.58
.192	.19082	98,2	.98162	19,1	.28063	223,4	.99195	8,4	11 00 02.84
.193	.19180	98,1	.98143	19,2	.28286	222,2	.99186	8,5	11 03 29.11
.194	.19279	98,1	.98124	19,3	.28507	221,0	.99178	8,5	11 06 55.37
0.195	0.19377	98,1	0.98105	19,4	9.28728	219,9	9.99169	8,6	11 10 21.64
.196	.19475	98,1	.98085	19,5	.28947	218,7	.99160	8,6	11 13 47.90
.197	.19573	98,1	.98066	19,6	.29165	217,6	.99152	8,7	11 17 14.17
.198	.19671	98,0	.98046	19,7	.29382	216,5	.99143	8,7	11 20 40.43
.199	.19769	98,0	.98026	19,8	.29598	215,3	.99134	8,8	11 24 06.70
0.200	0.19867	98,0	0.98007	19,9	9.29813	214,2	9.99126	8,8	11 27 32.96
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	$\log \frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u (° ′ ″)
0.200	0.19867	98,0	0.98007	19,9	9.29813	214,2	9.99126	8,8	11 27 32.96
.201	.19965	98,0	.97987	20,0	.30027	213,1	.99117	8,8	11 30 59.23
.202	.20063	98,0	.97967	20,1	.30239	212,1	.99108	8,9	11 34 25.49
.203	.20161	97,9	.97947	20,2	.30451	211,0	.99099	8,9	11 37 51.76
.204	.20259	97,9	.97926	20,3	.30661	209,9	.99090	9,0	11 41 18.02
0.205	0.20357	97,9	0.97906	20,4	9.30871	208,9	9.99081	9,0	11 44 44.29
.206	.20455	97,9	.97886	20,5	.31079	207,8	.99072	9,1	11 48 10.55
.207	.20552	97,9	.97865	20,6	.31286	206,8	.99063	9,1	11 51 36.81
.208	.20650	97,8	.97845	20,7	.31493	205,8	.99054	9,2	11 55 03.08
.209	.20748	97,8	.97824	20,7	.31698	204,8	.99044	9,2	11 58 29.34
0.210	0.20846	97,8	0.97803	20,8	9.31902	203,8	9.99035	9,3	12 01 55.61
.211	.20944	97,8	.97782	20,9	.32106	202,8	.99026	9,3	12 05 21.87
.212	.21042	97,8	.97761	21,0	.32308	201,8	.99017	9,3	12 08 48.14
.213	.21139	97,7	.97740	21,1	.32509	200,8	.99007	9,4	12 12 14.40
.214	.21237	97,7	.97719	21,2	.32709	199,8	.98998	9,4	12 15 40.67
0.215	0.21335	97,7	0.97698	21,3	9.32909	198,9	9.98988	9,5	12 19 06.93
.216	.21432	97,7	.97676	21,4	.33107	197,9	.98979	9,5	12 22 33.20
.217	.21530	97,7	.97655	21,5	.33305	197,0	.98969	9,6	12 25 59.46
.218	.21628	97,6	.97633	21,6	.33501	196,0	.98960	9,6	12 29 25.73
.219	.21725	97,6	.97612	21,7	.33697	195,1	.98950	9,7	12 32 51.99
0.220	0.21823	97,6	0.97590	21,8	9.33891	194,2	9.98940	9,7	12 36 18.26
.221	.21921	97,6	.97568	21,9	.34085	193,3	.98931	9,8	12 39 44.52
.222	.22018	97,5	.97546	22,0	.34278	192,4	.98921	9,8	12 43 10.79
.223	.22116	97,5	.97524	22,1	.34470	191,5	.98911	9,8	12 46 37.05
.224	.22213	97,5	.97502	22,2	.34661	190,6	.98901	9,9	12 50 03.32
0.225	0.22311	97,5	0.97479	22,3	9.34851	189,8	9.98891	9,9	12 53 29.58
.226	.22408	97,5	.97457	22,4	.35041	188,9	.98881	10,0	12 56 55.85
.227	.22506	97,4	.97435	22,5	.35229	188,0	.98871	10,0	13 00 22.11
.228	.22603	97,4	.97412	22,6	.35417	187,2	.98861	10,1	13 03 48.38
.229	.22700	97,4	.97389	22,7	.35603	186,3	.98851	10,1	13 07 14.64
0.230	0.22798	97,4	0.97367	22,8	9.35789	185,5	9.98841	10,2	13 10 40.91
.231	.22895	97,3	.97344	22,9	.35974	184,7	.98831	10,2	13 14 07.17
.232	.22992	97,3	.97321	23,0	.36158	183,8	.98821	10,3	13 17 33.44
.233	.23090	97,3	.97298	23,1	.36342	183,0	.98810	10,3	13 20 59.70
.234	.23187	97,3	.97275	23,2	.36525	182,2	.98800	10,4	13 24 25.96
0.235	0.23284	97,3	0.97251	23,3	9.36706	181,4	9.98790	10,4	13 27 52.23
.236	.23382	97,2	.97228	23,4	.36887	180,6	.98779	10,4	13 31 18.49
.237	.23479	97,2	.97205	23,5	.37068	179,8	.98769	10,5	13 34 44.76
.238	.23576	97,2	.97181	23,6	.37247	179,0	.98758	10,5	13 38 11.02
.239	.23673	97,2	.97158	23,7	.37426	178,2	.98748	10,6	13 41 37.29
0.240	0.23770	97,1	0.97134	23,8	9.37603	177,5	9.98737	10,6	13 45 03.55
.241	.23867	97,1	.97110	23,9	.37780	176,7	.98726	10,7	13 48 29.82
.242	.23964	97,1	.97086	24,0	.37957	175,9	.98716	10,7	13 51 56.08
.243	.24062	97,1	.97062	24,1	.38132	175,2	.98705	10,8	13 55 22.35
.244	.24159	97,0	.97038	24,2	.38307	174,4	.98694	10,8	13 58 48.61
0.245	0.24256	97,0	0.97014	24,3	9.38481	173,7	9.98683	10,9	14 02 14.88
.246	.24353	97,0	.96989	24,4	.38655	173,0	.98672	10,9	14 05 41.14
.247	.24450	97,0	.96965	24,4	.38827	172,2	.98662	11,0	14 09 07.41
.248	.24547	96,9	.96941	24,5	.38999	171,5	.98651	11,0	14 12 33.67
.249	.24643	96,9	.96916	24,6	.39170	170,8	.98640	11,0	14 15 59.94
0.250	0.24740	96,9	0.96891	24,7	9.39341	170,1	9.98628	11,1	14 19 26.20
u	$-i \sinh iu$	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log \frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

Circular Functions.

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u (° ′ ″)
0.250	0.24740	96,9	0.96891	24,7	9.39341	170,1	9.98628	11,1	14 19 26.20
.251	.24837	96,9	.96866	24,8	.39510	169,4	.98617	11,1	14 22 52.47
.252	.24934	96,8	.96842	24,9	.39679	168,7	.98606	11,2	14 26 18.73
.253	.25031	96,8	.96817	25,0	.39848	168,0	.98595	11,2	14 29 45.00
.254	.25128	96,8	.96792	25,1	.40015	167,3	.98584	11,3	14 33 11.26
0.255	0.25225	96,8	0.96766	25,2	9.40182	166,6	9.98572	11,3	14 36 37.53
.256	.25321	96,7	.96741	25,3	.40349	165,9	.98561	11,4	14 40 03.79
.257	.25418	96,7	.96716	25,4	.40514	165,2	.98550	11,4	14 43 30.06
.258	.25515	96,7	.96690	25,5	.40679	164,6	.98538	11,5	14 46 56.32
.259	.25611	96,7	.96665	25,6	.40843	163,9	.98527	11,5	14 50 22.58
0.260	0.25708	96,6	0.96639	25,7	9.41007	163,3	9.98515	11,6	14 53 48.85
.261	.25805	96,6	.96613	25,8	.41170	162,6	.98504	11,6	14 57 15.11
.262	.25901	96,6	.96587	25,9	.41332	162,0	.98492	11,6	15 00 41.38
.263	.25998	96,6	.96561	26,0	.41494	161,3	.98480	11,7	15 04 07.64
.264	.26094	96,5	.96535	26,1	.41655	160,7	.98469	11,7	15 07 33.91
0.265	0.26191	96,5	0.96509	26,2	9.41815	160,0	9.98457	11,8	15 11 00.17
.266	.26287	96,5	.96483	26,3	.41975	159,4	.98445	11,8	15 14 26.44
.267	.26384	96,5	.96457	26,4	.42134	158,8	.98433	11,9	15 17 52.70
.268	.26480	96,4	.96430	26,5	.42292	158,2	.98421	11,9	15 21 18.97
.269	.26577	96,4	.96404	26,6	.42450	157,5	.98409	12,0	15 24 45.23
0.270	0.26673	96,4	0.96377	26,7	9.42607	156,9	9.98397	12,0	15 28 11.50
.271	.26770	96,4	.96350	26,8	.42764	156,3	.98385	12,1	15 31 37.76
.272	.26866	96,3	.96324	26,9	.42920	155,7	.98373	12,1	15 35 04.03
.273	.26962	96,3	.96297	27,0	.43075	155,1	.98361	12,2	15 38 30.29
.274	.27058	96,3	.96270	27,1	.43230	154,5	.98349	12,2	15 41 56.56
0.275	0.27155	96,2	0.96243	27,2	9.43384	153,9	9.98337	12,3	15 45 22.82
.276	.27251	96,2	.96215	27,3	.43538	153,3	.98324	12,3	15 48 49.09
.277	.27347	96,2	.96188	27,3	.43691	152,8	.98312	12,3	15 52 15.35
.278	.27443	96,2	.96161	27,4	.43844	152,2	.98300	12,4	15 55 41.62
.279	.27539	96,1	.96133	27,5	.43996	151,6	.98287	12,4	15 59 07.88
0.280	0.27636	96,1	0.96106	27,6	9.44147	151,0	9.98275	12,5	16 02 34.15
.281	.27732	96,1	.96078	27,7	.44298	150,5	.98262	12,5	16 06 00.41
.282	.27828	96,1	.96050	27,8	.44448	149,9	.98250	12,6	16 09 26.68
.283	.27924	96,0	.96022	27,9	.44597	149,3	.98237	12,6	16 12 52.94
.284	.28020	96,0	.95994	28,0	.44746	148,8	.98225	12,7	16 16 19.20
0.285	0.28116	96,0	0.95966	28,1	9.44895	148,2	9.98212	12,7	16 19 45.47
.286	.28212	95,9	.95938	28,2	.45043	147,7	.98199	12,8	16 23 11.73
.287	.28308	95,9	.95910	28,3	.45190	147,1	.98186	12,8	16 26 38.00
.288	.28404	95,9	.95881	28,4	.45337	146,6	.98173	12,9	16 30 04.26
.289	.28499	95,9	.95853	28,5	.45484	146,1	.98161	12,9	16 33 30.53
0.290	0.28595	95,8	0.95824	28,6	9.45629	145,5	9.98148	13,0	16 36 56.79
.291	.28691	95,8	.95796	28,7	.45775	145,0	.98135	13,0	16 40 23.06
.292	.28787	95,8	.95767	28,8	.45919	144,5	.98122	13,1	16 43 49.32
.293	.28883	95,7	.95738	28,9	.46064	144,0	.98109	13,1	16 47 15.59
.294	.28978	95,7	.95709	29,0	.46207	143,4	.98095	13,1	16 50 41.85
0.295	0.29074	95,7	0.95680	29,1	9.46350	142,9	9.98082	13,2	16 54 08.12
.296	.29170	95,7	.95651	29,2	.46493	142,4	.98069	13,2	16 57 34.38
.297	.29265	95,6	.95622	29,3	.46635	141,9	.98056	13,3	17 01 00.65
.298	.29361	95,6	.95593	29,4	.46777	141,4	.98042	13,3	17 04 26.91
.299	.29456	95,6	.95563	29,5	.46918	140,9	.98029	13,4	17 07 53.18
0.300	0.29552	95,5	0.95534	29,6	9.47059	140,4	9.98016	13,4	17 11 19.44
u	−i sinh iu	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log\frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
0.300	0.29552	95,5	0.95534	29,6	9.47059	140,4	9.98016	13,4	17 11 19.44
.301	.29648	95,5	.95504	29,6	.47199	139,9	.98002	13,5	17 14 45.71
.302	.29743	95,5	.95474	29,7	.47339	139,4	.97989	13,5	17 18 11.97
.303	.29838	95,4	.95445	29,8	.47478	138,9	.97975	13,6	17 21 38.24
.304	.29934	95,4	.95415	29,9	.47616	138,4	.97962	13,6	17 25 04.50
0.305	0.30029	95,4	0.95385	30,0	9.47755	137,9	9.97948	13,7	17 28 30.77
.306	.30125	95,4	.95355	30,1	.47892	137,5	.97934	13,7	17 31 57.03
.307	.30220	95,3	.95324	30,2	.48029	137,0	.97920	13,8	17 35 23.30
.308	.30315	95,3	.95294	30,3	.48166	136,5	.97907	13,8	17 38 49.56
.309	.30411	95,3	.95264	30,4	.48303	136,0	.97893	13,9	17 42 15.83
0.310	0.30506	95,2	0.95233	30,5	9.48438	135,6	9.97879	13,9	17 45 42.09
.311	.30601	95,2	.95203	30,6	.48574	135,1	.97865	14,0	17 49 08.35
.312	.30696	95,2	.95172	30,7	.48709	134,7	.97851	14,0	17 52 34.62
.313	.30791	95,1	.95141	30,8	.48843	134,2	.97837	14,1	17 56 00.88
.314	.30887	95,1	.95111	30,9	.48977	133,7	.97823	14,1	17 59 27.15
0.315	0.30982	95,1	0.95080	31,0	9.49110	133,3	9.97809	14,2	18 02 53.41
.316	.31077	95,0	.95049	31,1	.49244	132,8	.97795	14,2	18 06 19.68
.317	.31172	95,0	.95017	31,2	.49376	132,4	.97780	14,2	18 09 45.94
.318	.31267	95,0	.94986	31,3	.49508	131,9	.97766	14,3	18 13 12.21
.319	.31362	95,0	.94955	31,4	.49640	131,5	.97752	14,3	18 16 38.47
0.320	0.31457	94,9	0.94924	31,5	9.49771	131,1	9.97737	14,4	18 20 04.74
.321	.31552	94,9	.94892	31,6	.49902	130,6	.97723	14,4	18 23 31.00
.322	.31646	94,9	.94860	31,6	.50032	130,2	.97709	14,5	18 26 57.27
.323	.31741	94,8	.94829	31,7	.50162	129,7	.97694	14,5	18 30 23.53
.324	.31836	94,8	.94797	31,8	.50292	129,3	.97679	14,6	18 33 49.80
0.325	0.31931	94,8	0.94765	31,9	9.50421	128,9	9.97665	14,6	18 37 16.06
.326	.32026	94,7	.94733	32,0	.50550	128,5	.97650	14,7	18 40 42.33
.327	.32120	94,7	.94701	32,1	.50678	128,0	.97635	14,7	18 44 08.59
.328	.32215	94,7	.94669	32,2	.50806	127,6	.97621	14,8	18 47 34.86
.329	.32310	94,6	.94637	32,3	.50933	127,2	.97606	14,8	18 51 01.12
0.330	0.32404	94,6	0.94604	32,4	9.51060	126,8	9.97591	14,9	18 54 27.39
.331	.32499	94,6	.94572	32,5	.51187	126,4	.97576	14,9	18 57 53.65
.332	.32593	94,5	.94539	32,6	.51313	126,0	.97561	15,0	19 01 19.92
.333	.32688	94,5	.94507	32,7	.51439	125,6	.97546	15,0	19 04 46.18
.334	.32782	94,5	.94474	32,8	.51564	125,2	.97531	15,1	19 08 12.45
0.335	0.32877	94,4	0.94441	32,9	9.51689	124,8	9.97516	15,1	19 11 38.71
.336	.32971	94,4	.94408	33,0	.51814	124,4	.97501	15,2	19 15 04.97
.337	.33066	94,4	.94375	33,1	.51938	124,0	.97486	15,2	19 18 31.24
.338	.33160	94,3	.94342	33,2	.52062	123,6	.97470	15,3	19 21 57.50
.339	.33254	94,3	.94309	33,3	.52185	123,2	.97455	15,3	19 25 23.77
0.340	0.33349	94,3	0.94275	33,3	9.52308	122,8	9.97440	15,4	19 28 50.03
.341	.33443	94,2	.94242	33,4	.52430	122,4	.97424	15,4	19 32 16.30
.342	.33537	94,2	.94209	33,5	.52553	122,0	.97409	15,5	19 35 42.56
.343	.33631	94,2	.94175	33,6	.52674	121,6	.97394	15,5	19 39 08.83
.344	.33726	94,1	.94141	33,7	.52796	121,2	.97378	15,6	19 42 35.09
0.345	0.33820	94,1	0.94108	33,8	9.52917	120,8	9.97362	15,6	19 46 01.36
.346	.33914	94,1	.94074	33,9	.53038	120,5	.97347	15,7	19 49 27.62
.347	.34008	94,0	.94040	34,0	.53158	120,1	.97331	15,7	19 52 53.89
.348	.34102	94,0	.94006	34,1	.53278	119,7	.97315	15,8	19 56 20.15
.349	.34196	94,0	.93972	34,2	.53397	119,3	.97300	15,8	19 59 46.42
0.350	0.34290	93,9	0.93937	34,3	9.53516	119,0	9.97284	15,9	20 03 12.68
u	− i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
0.350	0.34290	93,9	0.93937	34,3	9.53516	119,0	9.97284	15,9	20 03 12.68
.351	.34384	93,9	.93903	34,4	.53635	118,6	.97268	15,9	20 06 38.95
.352	.34478	93,9	.93869	34,5	.53754	118,2	.97252	16,0	20 10 05.21
.353	.34571	93,8	.93834	34,6	.53872	117,9	.97236	16,0	20 13 31.48
.354	.34665	93,8	.93799	34,7	.53989	117,5	.97220	16,1	20 16 57.74
0.355	0.34759	93,8	0.93765	34,8	9.54107	117,2	9.97204	16,1	20 20 24.01
.356	.34853	93,7	.93730	34,9	.54224	116,8	.97188	16,1	20 23 50.27
.357	.34946	93,7	.93695	34,9	.54340	116,4	.97172	16,2	20 27 16.54
.358	.35040	93,7	.93660	35,0	.54457	116,1	.97155	16,2	20 30 42.80
.359	.35134	93,6	.93625	35,1	.54573	115,7	.97139	16,3	20 34 09.07
0.360	0.35227	93,6	0.93590	35,2	9.54688	115,4	9.97123	16,3	20 37 35.33
.361	.35321	93,6	.93554	35,3	.54803	115,0	.97106	16,4	20 41 01.60
.362	.35415	93,5	.93519	35,4	.54918	114,7	.97090	16,4	20 44 27.86
.363	.35508	93,5	.93484	35,5	.55033	114,3	.97074	16,5	20 47 54.12
.364	.35601	93,4	.93448	35,6	.55147	114,0	.97057	16,5	20 51 20.39
0.365	0.35695	93,4	0.93412	35,7	9.55261	113,7	9.97040	16,6	20 54 46.65
.366	.35788	93,4	.93377	35,8	.55374	113,3	.97024	16,6	20 58 12.92
.367	.35882	93,3	.93341	35,9	.55487	113,0	.97007	16,7	21 01 39.18
.368	.35975	93,3	.93305	36,0	.55600	112,6	.96990	16,7	21 05 05.45
.369	.36068	93,3	.93269	36,1	.55713	112,3	.96974	16,8	21 08 31.71
0.370	0.36162	93,2	0.93233	36,2	9.55825	112,0	9.96957	16,8	21 11 57.98
.371	.36255	93,2	.93197	36,3	.55937	111,6	.96940	16,9	21 15 24.24
.372	.36348	93,2	.93160	36,3	.56048	111,3	.96923	16,9	21 18 50.51
.373	.36441	93,1	.93124	36,4	.56159	111,0	.96906	17,0	21 22 16.77
.374	.36534	93,1	.93087	36,5	.56270	110,7	.96889	17,0	21 25 43.04
0.375	0.36627	93,1	0.93051	36,6	9.56380	110,3	9.96872	17,1	21 29 09.30
.376	.36720	93,0	.93014	36,7	.56491	110,0	.96855	17,1	21 32 35.57
.377	.36813	93,0	.92977	36,8	.56600	109,7	.96838	17,2	21 36 01.83
.378	.36906	92,9	.92940	36,9	.56710	109,4	.96820	17,2	21 39 28.10
.379	.36999	92,9	.92904	37,0	.56819	109,0	.96803	17,3	21 42 54.36
0.380	0.37092	92,9	0.92866	37,1	9.56928	108,7	9.96786	17,3	21 46 20.63
.381	.37185	92,8	.92829	37,2	.57037	108,4	.96769	17,4	21 49 46.89
.382	.37278	92,8	.92792	37,3	.57145	108,1	.96751	17,4	21 53 13.16
.383	.37370	92,8	.92755	37,4	.57253	107,8	.96734	17,5	21 56 39.42
.384	.37463	92,7	.92717	37,5	.57361	107,5	.96716	17,5	22 00 05.69
0.385	0.37556	92,7	0.92680	37,6	9.57468	107,2	9.96699	17,6	22 03 31.95
.386	.37649	92,6	.92642	37,6	.57575	106,9	.96681	17,6	22 06 58.22
.387	.37741	92,6	.92605	37,7	.57682	106,6	.96663	17,7	22 10 24.48
.388	.37834	92,6	.92567	37,8	.57788	106,3	.96646	17,8	22 13 50.74
.389	.37926	92,5	.92529	37,9	.57894	106,0	.96628	17,8	22 17 17.01
0.390	0.38019	92,5	0.92491	38,0	9.58000	105,7	9.96610	17,9	22 20 43.27
.391	.38111	92,5	.92453	38,1	.58105	105,4	.96592	17,9	22 24 09.54
.392	.38204	92,4	.92415	38,2	.58211	105,1	.96574	18,0	22 27 35.80
.393	.38296	92,4	.92376	38,3	.58316	104,8	.96556	18,0	22 31 02.07
.394	.38389	92,3	.92338	38,4	.58420	104,5	.96538	18,1	22 34 28.33
0.395	0.38481	92,3	0.92300	38,5	9.58524	104,2	9.96520	18,1	22 37 54.60
.396	.38573	92,3	.92261	38,6	.58628	103,9	.96502	18,2	22 41 20.86
.397	.38665	92,2	.92223	38,7	.58732	103,6	.96484	18,2	22 44 47.13
.398	.38758	92,2	.92184	38,8	.58836	103,3	.96465	18,3	22 48 13.39
.399	.38850	92,1	.92145	38,8	.58939	103,0	.96447	18,3	22 51 39.66
0.400	0.38942	92,1	0.92106	38,9	9.59042	102,7	9.96429	18,4	22 55 05.92
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
0.400	0.38942	92,1	0.92106	38,9	9.59042	102,7	9.96429	18,4	22 55 05.92
.401	.39034	92,1	.92067	39,0	.59144	102,4	.96410	18,4	22 58 32.19
.402	.39126	92,0	.92028	39,1	.59247	102,2	.96392	18,5	23 01 58.45
.403	.39218	92,0	.91989	39,2	.59349	101,9	.96374	18,5	23 05 24.72
.404	.39310	91,9	.91950	39,3	.59450	101,6	.96355	18,6	23 08 50.98
0.405	0.39402	91,9	0.91910	39,4	9.59552	101,3	9.96336	18,6	23 12 17.25
.406	.39494	91,9	.91871	39,5	.59653	101,0	.96318	18,7	23 15 43.51
.407	.39586	91,8	.91831	39,6	.59754	100,7	.96299	18,7	23 19 09.78
.408	.39677	91,8	.91792	39,7	.59854	100,5	.96280	18,8	23 22 36.04
.409	.39769	91,8	.91752	39,8	.59955	100,2	.96262	18,8	23 26 02.31
0.410	0.39861	91,7	0.91712	39,9	9.60055	99,9	9.96243	18,9	23 29 28.57
.411	.39953	91,7	.91672	40,0	.60155	99,6	.96224	18,9	23 32 54.84
.412	.40044	91,6	.91632	40,0	.60254	99,4	.96205	19,0	23 36 21.10
.413	.40136	91,6	.91592	40,1	.60353	99,1	.96186	19,0	23 39 47.36
.414	.40227	91,6	.91552	40,2	.60452	98,8	.96167	19,1	23 43 13.63
0.415	0.40319	91,5	0.91512	40,3	9.60551	98,6	9.96148	19,1	23 46 39.89
.416	.40410	91,5	.91471	40,4	.60649	98,3	.96128	19,2	23 50 06.16
.417	.40502	91,4	.91431	40,5	.60748	98,0	.96109	19,2	23 53 32.42
.418	.40593	91,4	.91390	40,6	.60845	97,8	.96090	19,3	23 56 58.69
.419	.40685	91,3	.91350	40,7	.60943	97,5	.96071	19,3	24 00 24.95
0.420	0.40776	91,3	0.91309	40,8	9.61041	97,3	9.96051	19,4	24 03 51.22
.421	.40867	91,3	.91268	40,9	.61138	97,0	.96032	19,4	24 07 17.48
.422	.40959	91,2	.91227	41,0	.61234	96,7	.96012	19,5	24 10 43.75
.423	.41050	91,2	.91186	41,0	.61331	96,5	.95993	19,6	24 14 10.01
.424	.41141	91,1	.91145	41,1	.61427	96,2	.95973	19,6	24 17 36.28
0.425	0.41232	91,1	0.91104	41,2	9.61524	96,0	9.95954	19,7	24 21 02.54
.426	.41323	91,1	.91063	41,3	.61619	95,7	.95934	19,7	24 24 28.81
.427	.41414	91,0	.91021	41,4	.61715	95,5	.95914	19,8	24 27 55.07
.428	.41505	91,0	.90980	41,5	.61810	95,2	.95894	19,8	24 31 21.34
.429	.41596	90,9	.90938	41,6	.61905	94,9	.95875	19,9	24 34 47.60
0.430	0.41687	90,9	0.90897	41,7	9.62000	94,7	9.95855	19,9	24 38 13.87
.431	.41778	90,9	.90855	41,8	.62095	94,4	.95835	20,0	24 41 40.13
.432	.41869	90,8	.90813	41,9	.62189	94,2	.95815	20,0	24 45 06.40
.433	.41960	90,8	.90771	42,0	.62283	94,0	.95795	20,1	24 48 32.66
.434	.42050	90,7	.90729	42,1	.62377	93,7	.95775	20,1	24 51 58.93
0.435	0.42141	90,7	0.90687	42,1	9.62471	93,5	9.95755	20,2	24 55 25.19
.436	.42232	90,6	.90645	42,2	.62564	93,2	.95734	20,2	24 58 51.46
.437	.42322	90,6	.90603	42,3	.62657	93,0	.95714	20,3	25 02 17.72
.438	.42413	90,6	.90560	42,4	.62750	92,8	.95694	20,3	25 05 43.99
.439	.42503	90,5	.90518	42,5	.62842	92,5	.95673	20,4	25 09 10.25
0.440	0.42594	90,5	0.90475	42,6	9.62935	92,2	9.95653	20,4	25 12 36.51
.441	.42684	90,4	.90433	42,7	.63027	92,0	.95632	20,5	25 16 02.78
.442	.42775	90,4	.90390	42,8	.63119	91,8	.95612	20,6	25 19 29.04
.443	.42865	90,3	.90347	42,9	.63210	91,5	.95591	20,6	25 22 55.31
.444	.42956	90,3	.90304	43,0	.63302	91,3	.95571	20,7	25 26 21.57
0.445	0.43046	90,3	0.90261	43,0	9.63393	91,1	9.95550	20,7	25 29 47.84
.446	.43136	90,2	.90218	43,1	.63484	90,8	.95529	20,8	25 33 14.10
.447	.43226	90,2	.90175	43,2	.63575	90,6	.95509	20,8	25 36 40.37
.448	.43316	90,1	.90132	43,3	.63665	90,4	.65488	20,9	25 40 06.63
.449	.43406	90,1	.90088	43,4	.63755	90,1	.95467	20,9	25 43 32.90
0.450	0.43497	90,0	0.90045	43,5	9.63845	89,9	9.95446	21,0	25 46 59.16
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
0.450	0.43497	90,0	0.90045	43,5	9.63845	89,9	9.95446	21,0	25° 46′ 59″.16
.451	.43587	90,0	.90001	43,6	.63935	89,7	.95425	21,0	25 50 25.43
.452	.43677	90,0	.89958	43,7	.64025	89,4	.95404	21,1	25 53 51.69
.453	.43766	89,9	.89914	43,8	.64114	89,2	.95383	21,1	25 57 17.96
.454	.43856	89,9	.89870	43,9	.64203	89,0	.95361	21,2	26 00 44.22
0.455	0.43946	89,8	0.89826	43,9	9.64292	88,8	9.95340	21,2	26 04 10.49
.456	.44036	89,8	.89782	44,0	.64381	88,5	.95319	21,3	26 07 36.75
.457	.44126	89,7	.89738	44,1	.64469	88,3	.95298	21,4	26 11 03.02
.458	.44216	89,7	.89694	44,2	.64557	88,1	.95276	21,4	26 14 29.28
.459	.44305	89,6	.89650	44,3	.64645	87,9	.95255	21,5	26 17 55.55
0.460	0.44395	89,6	0.89605	44,4	9.64733	87,7	9.95233	21,5	26 21 21.81
.461	.44484	89,6	.89561	44,5	.64821	87,4	.95212	21,6	26 24 48.08
.462	.44574	89,5	.89516	44,6	.64908	87,2	.95190	21,6	26 28 14.34
.463	.44663	89,5	.89472	44,7	.64995	87,0	.95169	21,7	26 31 40.61
.464	.44753	89,4	.89427	44,8	.65082	86,8	.95147	21,7	26 35 06.87
0.465	0.44842	89,4	0.89382	44,8	9.65169	86,6	9.95125	21,8	26 38 33.13
.466	.44932	89,3	.89337	44,9	.65255	86,4	.95103	21,8	26 41 59.40
.467	.45021	89,3	.89292	45,0	.65341	86,1	.95081	21,9	26 45 25.66
.468	.45110	89,2	.89247	45,1	.65428	85,9	.95059	22,0	26 48 51.93
.469	.45199	89,2	.89202	45,2	.65513	85,7	.95037	22,0	26 52 18.19
0.470	0.45289	89,2	0.89157	45,3	9.65599	85,5	9.95015	22,1	26 55 44.46
.471	.45378	89,1	.89111	45,4	.65684	85,3	.94993	22,1	26 59 10.72
.472	.45467	89,1	.89066	45,5	.65769	85,1	.94971	22,2	27 02 36.99
.473	.45556	89,0	.89021	45,6	.65854	84,9	.94949	22,2	27 06 03.25
.474	.45645	89,0	.88975	45,6	.65939	84,7	.94927	22,3	27 09 29.52
0.475	0.45734	88,9	0.88929	45,7	9.66024	84,4	9.94904	22,3	27 12 55.78
.476	.45823	88,9	.88883	45,8	.66108	84,2	.94882	22,4	27 16 22.05
.477	.45912	88,8	.88838	45,9	.66192	84,0	.94860	22,4	27 19 48.31
.478	.46000	88,8	.88792	46,0	.66276	83,8	.94837	22,5	27 23 14.58
.479	.46089	88,7	.88746	46,1	.66360	83,6	.94815	22,6	27 26 40.84
0.480	0.46178	88,7	0.88699	46,2	9.66443	83,4	9.94792	22,6	27 30 07.11
.481	.46267	88,7	.88653	46,3	.66527	83,2	.94769	22,7	27 33 33.37
.482	.46355	88,6	.88607	46,4	.66610	83,0	.94747	22,7	27 36 59.64
.483	.46444	88,6	.88561	46,4	.66693	82,8	.94724	22,8	27 40 25.90
.484	.46532	88,5	.88514	46,5	.66775	82,6	.94701	22,8	27 43 52.17
0.485	0.46621	88,5	0.88467	46,6	9.66858	82,4	9.94678	22,9	27 47 18.43
.486	.46709	88,4	.88421	46,7	.66940	82,2	.94655	22,9	27 50 44.70
.487	.46798	88,4	.88374	46,8	.67022	82,0	.94633	23,0	27 54 10.96
.488	.46886	88,3	.88327	46,9	.67104	81,8	.94609	23,1	27 57 37.23
.489	.46974	88,3	.88280	47,0	.67186	81,6	.94586	23,1	28 01 03.49
0.490	0.47063	88,2	0.88233	47,1	9.67268	81,4	9.94563	23,2	28 04 29.76
.491	.47151	88,2	.88186	47,2	.67349	81,2	.94540	23,2	28 07 56.02
.492	.47239	88,1	.88139	47,2	.67430	81,0	.94517	23,3	28 11 22.28
.493	.47327	88,1	.88092	47,3	.67511	80,8	.94493	23,3	28 14 48.55
.494	.47415	88,0	.88044	47,4	.67592	80,6	.94470	23,4	28 18 14.81
0.495	0.47503	88,0	0.87997	47,5	9.67672	80,5	9.94447	23,4	28 21 41.08
.496	.47591	87,9	.87949	47,6	.67753	80,3	.94423	23,5	28 25 07.34
.497	.47679	87,9	.87902	47,7	.67833	80,1	.94400	23,6	28 28 33.61
.498	.47767	87,9	.87854	47,8	.67913	79,9	.94376	23,6	28 31 59.87
.499	.47855	87,8	.87806	47,9	.67993	79,7	.94352	23,7	28 35 26.14
0.500	0.47943	87,8	0.87758	47,9	9.68072	79,5	9.94329	23,7	28 38 52.40
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u
0.500	0.47943	87,8	0.87758	47,9	9.68072	79,5	9.94329	23,7	28° 38′ 52.40″
.501	.48030	87,7	.87710	48,0	.68152	79,3	.94305	23,8	28 42 18.67
.502	.48118	87,7	.87662	48,1	.68231	79,1	.94281	23,8	28 45 44.93
.503	.48206	87,6	.87614	48,2	.68310	78,9	.94257	23,9	28 49 11.20
.504	.48293	87,6	.87566	48,3	.68389	78,7	.94233	24,0	28 52 37.46
0.505	0.48381	87,5	0.87517	48,4	9.68467	78,6	9.94209	24,0	28 56 03.73
.506	.48468	87,5	.87469	48,5	.68546	78,4	.94185	24,1	28 59 29.99
.507	.48556	87,4	.87421	48,6	.68624	78,2	.94161	24,1	29 02 56.26
.508	.48643	87,4	.87372	48,6	.68702	78,0	.94137	24,2	29 06 22.52
.509	.48730	87,3	.87323	48,7	.68780	77,8	.94113	24,2	29 09 48.79
0.510	0.48818	87,3	0.87274	48,8	9.68858	77,6	9.94089	24,3	29 13 15.05
.511	.48905	87,2	.87226	48,9	.68935	77,5	.94064	24,3	29 16 41.32
.512	.48992	87,2	.87177	49,0	.69013	77,3	.94040	24,4	29 20 07.58
.513	.49079	87,1	.87128	49,1	.69090	77,1	.94016	24,5	29 23 33.85
.514	.49166	87,1	.87078	49,2	.69167	76,9	.93991	24,5	29 27 00.11
0.515	0.49253	87,0	0.87029	49,3	9.69244	76,7	9.93967	24,6	29 30 26.38
.516	.49340	87,0	.86980	49,3	.69320	76,6	.93942	24,6	29 33 52.64
.517	.49427	86,9	.86931	49,4	.69397	76,4	.93917	24,7	29 37 18.90
.518	.49514	86,9	.86881	49,5	.69473	76,2	.93893	24,8	29 40 45.17
.519	.49601	86,8	.85832	49,6	.69549	76,0	.93868	24,8	29 44 11.43
0.520	0.49688	86,8	0.86782	49,7	9.69625	75,9	9.93843	24,9	29 47 37.70
.521	.49775	86,7	.86732	49,8	.69701	75,7	.93818	24,9	29 51 03.96
.522	.49861	86,7	.86682	49,9	.69777	75,5	.93793	25,0	29 54 30.23
.523	.49948	86,6	.86632	49,9	.69852	75,3	.93768	25,0	29 57 56.49
.524	.50035	86,6	.86582	50,0	.69927	75,2	.93743	25,1	30 01 22.76
0.525	0.50121	86,5	0.86532	50,1	9.70002	75,0	9.93718	25,2	30 04 49.02
.526	.50208	86,5	.86482	50,2	.70077	74,8	.93693	25,2	30 08 15.29
.527	.50294	86,4	.86432	50,3	.70152	74,6	.93667	25,3	30 11 41.55
.528	.50381	86,4	.86382	50,4	.70226	74,5	.93642	25,3	30 15 07.82
.529	.50467	86,3	.86331	50,5	.70301	74,3	.93617	25,4	30 18 34.08
0.530	0.50553	86,3	0.86281	50,6	9.70375	74,1	9.93591	25,4	30 22 00.35
.531	.50640	86,2	.86230	50,6	.70449	74,0	.93566	25,5	30 25 26.61
.532	.50726	86,2	.86179	50,7	.70523	73,8	.93540	25,6	30 28 52.88
.533	.50812	86,1	.86129	50,8	.70597	73,6	.93515	25,6	30 32 19.14
.534	.50898	86,1	.86078	50,9	.70670	73,4	.93489	25,7	30 35 45.41
0.535	0.50984	86,0	0.86027	51,0	9.70743	73,3	9.93463	25,7	30 39 11.67
.536	.51070	86,0	.85976	51,1	.70817	73,1	.93438	25,8	30 42 37.94
.537	.51156	85,9	.85925	51,2	.70890	72,9	.93412	25,9	30 46 04.20
.538	.51242	85,9	.85874	51,2	.70963	72,8	.93386	25,9	30 49 30.47
.539	.51328	85,8	.85822	51,3	.71035	72,6	.93360	26,0	30 52 56.73
0.540	0.51414	85,8	0.85771	51,4	9.71108	72,5	9.93334	26,0	30 56 23.00
.541	.51499	85,7	.85719	51,5	.71180	72,3	.93308	26,1	30 59 49.26
.542	.51585	85,7	.85668	51,6	.71252	72,1	.93282	26,2	31 03 15.52
.543	.51671	85,6	.85616	51,7	.71324	72,0	.93256	26,2	31 06 41.79
.544	.51756	85,6	.85565	51,8	.71396	71,8	.93229	26,3	31 10 08.05
0.545	0.51842	85,5	0.85513	51,8	9.71468	71,6	9.93203	26,3	31 13 34.32
.546	.51927	85,5	.85461	51,9	.71540	71,5	.93177	26,4	31 17 00.58
.547	.52013	85,4	.85409	52,0	.71611	71,3	.93150	26,4	31 20 26.85
.548	.52098	85,4	.85357	52,1	.71682	71,2	.93124	26,5	31 23 53.11
.549	.52183	85,3	.85305	52,2	.71753	71,0	.93097	26,6	31 27 19.38
0.550	0.52269	85,3	0.85252	52,3	9.71824	70,8	9.93071	26,6	31 30 45.64
u	−i sinh iu	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log\frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
0.550	0.52269	85,3	0.85252	52,3	9.71824	70,8	9.93071	26,6	31° 30′ 45.″64
.551	.52354	85,2	.85200	52,4	.71895	70,7	.93044	26,7	31 34 11.91
.552	.52439	85,1	.85148	52,4	.71966	70,5	.93017	26,7	31 37 38.17
.553	.52524	85,1	.85095	52,5	.72036	70,4	.92991	26,8	31 41 04.44
.554	.52609	85,0	.85043	52,6	.72106	70,2	.92964	26,9	31 44 30.70
0.555	0.52694	85,0	0.84990	52,7	9.72176	70,0	9.92937	26,9	31 47 56.97
.556	.52779	84,9	.84937	52,8	.72246	69,9	.92910	27,0	31 51 23.23
.557	.52864	84,9	.84884	52,9	.72316	69,7	.92883	27,0	31 54 49.50
.558	.52949	84,8	.84832	52,9	.72386	69,6	.92856	27,1	31 58 15.76
.559	.53034	84,8	.84779	53,0	.72455	69,4	.92829	27,2	32 01 42.03
0.560	0.53119	84,7	0.84726	53,1	9.72525	69,3	9.92801	27,2	32 05 08.29
.561	.53203	84,7	.84672	53,2	.72594	69,1	.92774	27,3	32 08 34.56
.562	.53288	84,6	.84619	53,3	.72663	69,0	.92747	27,3	32 12 00.82
.563	.53373	84,6	.84566	53,4	.72732	68,8	.92719	27,4	32 15 27.09
.564	.53457	84,5	.84512	53,5	.72801	68,7	.92692	27,5	32 18 53.35
0.565	0.53542	84,5	0.84459	53,5	9.72869	68,5	9.92665	27,5	32 22 19.62
.566	.53626	84,4	.84405	53,6	.72938	68,4	.92637	27,6	32 25 45.88
.567	.53710	84,4	.84352	53,7	.73006	68,2	.92609	27,7	32 29 12.15
.568	.53795	84,3	.84298	53,8	.73074	68,1	.92582	27,7	32 32 38.41
.569	.53879	84,2	.84244	53,9	.73142	67,9	.92554	27,8	32 36 04.67
0.570	0.53963	84,2	0.84190	54,0	9.73210	67,8	9.92526	27,8	32 39 30.94
.571	.54047	84,1	.84136	54,0	.73277	67,6	.92498	27,9	32 42 57.20
.572	.54131	84,1	.84082	54,1	.73345	67,5	.92470	28,0	32 46 23.47
.573	.54216	84,0	.84028	54,2	.73412	67,3	.92442	28,0	32 49 49.73
.574	.54300	84,0	.83974	54,3	.73480	67,2	.92414	28,1	32 53 16.00
0.575	0.54383	83,9	0.83919	54,4	9.73547	67,0	9.92386	28,1	32 56 42.26
.576	.54467	83,9	.83865	54,5	.73614	66,9	.92358	28,2	33 00 08.53
.577	.54551	83,8	.83810	54,6	.73680	66,7	.92330	28,3	33 03 34.79
.578	.54635	83,8	.83756	54,6	.73747	66,6	.92301	28,3	33 07 01.06
.579	.54719	83,7	.83701	54,7	.73814	66,4	.92273	28,4	33 10 27.32
0.580	0.54802	83,6	0.83646	54,8	9.73880	66,3	9.92245	28,5	33 13 53.59
.581	.54886	83,6	.83591	54,9	.73946	66,2	.92216	28,5	33 17 19.85
.582	.54970	83,5	.83536	55,0	.74012	66,0	.92188	28,6	33 20 46.12
.583	.55053	83,5	.83481	55,1	.74078	65,9	.92159	28,6	33 24 12.38
.584	.55137	83,4	.83426	55,1	.74144	65,7	.92130	28,7	33 27 38.65
0.585	0.55220	83,4	0.83371	55,2	9.74210	65,6	9.92102	28,8	33 31 04.91
.586	.55303	83,3	.83316	55,3	.74275	65,4	.92073	28,8	33 34 31.18
.587	.55387	83,3	.83261	55,4	.74340	65,3	.92044	28,9	33 37 57.44
.588	.55470	83,2	.83205	55,5	.74406	65,1	.92015	29,0	33 41 23.71
.589	.55553	83,1	.83150	55,6	.74471	65,0	.91986	29,0	33 44 49.97
0.590	0.55636	83,1	0.83094	55,6	9.74536	64,9	9.91957	29,1	33 48 16.24
.591	.55719	83,0	.83038	55,7	.74600	64,7	.91928	29,1	33 51 42.50
.592	.55802	83,0	.82983	55,8	.74665	64,6	.91899	29,2	33 55 08.77
.593	.55885	82,9	.82927	55,9	.74730	64,4	.91869	29,3	33 58 35.03
.594	.55968	82,9	.82871	56,0	.74794	64,3	.91840	29,3	34 02 01.29
0.595	0.56051	82,8	0.82815	56,1	9.74858	64,2	9.91811	29,4	34 05 27.56
.596	.56134	82,8	.82759	56,1	.74922	64,0	.91781	29,5	34 08 53.82
.597	.56216	82,7	.82703	56,2	.74986	63,9	.91752	29,5	34 12 20.09
.598	.56299	82,6	.82646	56,3	.75050	63,8	.91722	29,6	34 15 46.35
.599	.56382	82,6	.82590	56,4	.75114	63,6	.91693	29,6	34 19 12.62
0.600	0.56464	82,5	0.82534	56,5	9.75177	63,5	9.91663	29,7	34 22 38.88
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	log $\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
0.600	0.56464	82,5	0.82534	56,5	9.75177	63,5	9.91663	29,7	34 22 38.88
.601	.56547	82,5	.82477	56,5	.75241	63,3	.91633	29,8	34 26 05.15
.602	.56629	82,4	.82420	56,6	.75304	63,2	.91604	29,8	34 29 31.41
.603	.56712	82,4	.82364	56,7	.75367	63,1	.91574	29,9	34 32 57.68
.604	.56794	82,3	.82307	56,8	.75430	62,9	.91544	30,0	34 36 23.94
0.605	0.56876	82,3	0.82250	56,9	9.75493	62,8	9.91414	30,0	34 39 50.21
.606	.56958	82,2	.82193	57,0	.75556	62,7	.91484	30,1	34 43 16.47
.607	.57041	82,1	.82130	57,0	.75618	62,5	.91454	30,2	34 46 42.74
.608	.57123	82,1	.82079	57,1	.75681	62,4	.91423	30,2	34 50 09.00
.609	.57205	82,0	.82022	57,2	.75743	62,3	.91393	30,3	34 53 35.27
0.610	0.57287	82,0	0.81965	57,3	9.75805	62,1	9.91363	30,4	34 57 01.53
.611	.57369	81,9	.81907	57,4	.75867	62,0	.91332	30,4	35 00 27.80
.612	.57451	81,9	.81850	57,5	.75929	61,9	.91302	30,5	35 03 54.06
.613	.57532	81,8	.81793	57,5	.75991	61,7	.91271	30,5	35 07 20.33
.614	.57614	81,7	.81735	57,6	.76053	61,6	.91241	30,6	35 10 46.59
0.615	0.57696	81,7	0.81677	57,7	9.76114	61,5	9.91210	30,7	35 14 12.86
.616	.57778	81,6	.81620	57,8	.76176	61,4	.91179	30,7	35 17 39.12
.617	.57859	81,6	.81562	57,9	.76237	61,2	.91149	30,8	35 21 05.39
.618	.57941	81,5	.81504	57,9	.76298	61,1	.91118	30,9	35 24 31.65
.619	.58022	81,4	.81446	58,0	.76359	61,0	.91087	30,9	35 27 57.92
0.620	0.58104	81,4	0.81388	58,1	9.76420	60,8	9.91056	31,0	35 31 24.18
.621	.58185	81,3	.81330	58,2	.76481	60,7	.91025	31,1	35 34 50.44
.622	.58266	81,3	.81271	58,3	.76542	60,6	.90994	31,1	35 38 16.71
.623	.58347	81,2	.81213	58,3	.76602	60,4	.90963	31,2	35 41 42.97
.624	.58429	81,2	.81155	58,4	.76663	60,3	.90931	31,3	35 45 09.24
0.625	0.58510	81,1	0.81096	58,5	9.76723	60,2	0.90900	31,3	35 48 35.50
.626	.58591	81,0	.81038	58,6	.76783	60,1	.90869	31,4	35 52 01.77
.627	.58672	81,0	.80979	58,7	.76843	59,9	.90837	31,5	35 55 28.03
.628	.58753	80,9	.80920	58,8	.76903	59,8	.90806	31,5	35 58 54.30
.629	.58834	80,9	.80862	58,8	.76963	59,7	.90774	31,6	36 02 20.56
0.630	0.58914	80,8	0.80803	58,9	9.77022	59,6	9.90743	31,7	36 05 46.83
.631	.58995	80,7	.80744	59,0	.77082	59,4	.90711	31,7	36 09 13.09
.632	.59076	80,7	.80685	59,1	.77141	59,3	.90679	31,8	36 12 39.36
.633	.59157	80,6	.80626	59,2	.77200	59,2	.90647	31,9	36 16 05.62
.634	.59237	80,6	.80566	59,2	.77259	59,1	.90615	31,9	36 19 31.89
0.635	0.59318	80,5	0.80507	59,3	9.77318	58,9	9.90583	32,0	36 22 58.15
.636	.59398	80,4	.80448	59,4	.77377	58,8	.90551	32,1	36 26 24.42
.637	.59479	80,4	.80388	59,5	.77436	58,7	.90519	32,1	36 29 50.68
.638	.59559	80,3	.80329	59,6	.77495	58,6	.90487	32,2	36 33 16.95
.639	.59639	80,3	.80269	59,6	.77553	58,5	.90455	32,3	36 36 43.21
0.640	0.59720	80,2	0.80210	59,7	9.77612	58,3	9.90423	32,3	36 40 09.48
.641	.59800	80,1	.80150	59,8	.77670	58,2	.90390	32,4	36 43 35.74
.642	.59880	80,1	.80090	59,9	.77728	58,1	.90358	32,5	36 47 02.01
.643	.59960	80,0	.80030	60,0	.77786	58,0	.90325	32,5	36 50 28.27
.644	.60040	80,0	.79970	60,0	.77844	57,8	.90293	32,6	36 53 54.54
0.645	0.60120	79,9	0.79910	60,1	9.77902	57,7	9.90260	32,7	36 57 20.80
.646	.60200	79,8	.79850	60,2	.77959	57,6	.90227	32,7	37 00 47.06
.647	.60280	79,8	.79790	60,3	.78017	57,5	.90195	32,8	37 04 13.33
.648	.60359	79,7	.79729	60,4	.78074	57,4	.90162	32,9	37 07 39.59
.649	.60439	79,7	.79669	60,4	.78132	57,2	.90129	32,9	37 11 05.86
0.650	0.60519	79,6	0.79608	60,5	9.78189	57,1	9.90096	33,0	37 14 32.12
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	log $\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
									° ′ ″
0.650	0.60519	79,6	0.79608	60,5	9.78189	57,1	9.90096	33,0	37 14 32.12
.651	.60598	79,5	.79548	60,6	.78246	57,0	.90063	33,1	37 17 58.39
.652	.60678	79,5	.79487	60,7	.78303	56,9	.90030	33,2	37 21 24.65
.653	.60757	79,4	.79426	60,8	.78360	56,8	.89997	33,2	37 24 50.92
.654	.60837	79,4	.79366	60,8	.78416	56,7	.89963	33,3	37 28 17.18
0.655	0.60916	79,3	0.79305	60,9	9.78473	56,5	9.89930	33,4	37 31 43.45
.656	.60995	79,2	.79244	61,0	.78530	56,4	.89897	33,4	37 35 09.71
.657	.61074	79,2	.79183	61,1	.78586	56,3	.89863	33,5	37 38 35.98
.658	.61154	79,1	.79122	61,2	.78642	56,2	.89830	33,6	37 42 02.24
.659	.61233	79,1	.79060	61,2	.78698	56,1	.89796	33,6	37 45 28.51
0.660	0.61312	79,0	0.78999	61,3	9.78754	56,0	9.89762	33,7	37 48 54.77
.661	.61391	78,9	.78938	61,4	.78810	55,8	.89729	33,8	37 52 21.04
.662	.61470	78,9	.78876	61,5	.78866	55,7	.89695	33,8	37 55 47.30
.663	.61548	78,8	.78815	61,5	.78922	55,6	.89661	33,9	37 59 13.57
.664	.61627	78,8	.78753	61,6	.78977	55,5	.89627	34,0	38 02 39.83
0.665	0.61706	78,7	0.78692	61,7	9.79033	55,4	9.89593	34,1	38 06 06.10
.666	.61785	78,6	.78630	61,8	.79088	55,3	.89559	34,1	38 09 32.36
.667	.61863	78,6	.78568	61,9	.79143	55,2	.89525	34,2	38 12 58.63
.668	.61942	78,5	.78506	61,9	.79198	55,0	.89490	34,3	38 16 24.89
.669	.62020	78,4	.78444	62,0	.79253	54,9	.89456	34,3	38 19 51.16
0.670	0.62099	78,4	0.78382	62,1	9.79308	54,8	9.89422	34,4	38 23 17.42
.671	.62177	78,3	.78320	62,2	.79363	54,7	.89387	34,5	38 26 43.68
.672	.62255	78,3	.78258	62,3	.79418	54,6	.89353	34,5	38 30 09.95
.673	.62333	78,2	.78196	62,3	.79472	54,5	.89318	34,6	38 33 36.21
.674	.62412	78,1	.78133	62,4	.79527	54,4	.89284	34,7	38 37 02.48
0.675	0.62490	78,1	0.78071	62,5	9.79581	54,3	9.89249	34,8	38 40 28.74
.676	.62568	78,0	.78008	62,6	.79635	54,1	.89214	34,8	38 43 55.01
.677	.62646	77,9	.77946	62,6	.79689	54,0	.89179	34,9	38 47 21.27
.678	.62724	77,9	.77883	62,7	.79743	53,9	.89144	35,0	38 50 47.54
.679	.62802	77,8	.77820	62,8	.79797	53,8	.89109	35,0	38 54 13.80
0.680	0.62879	77,8	0.77757	62,9	9.79851	53,7	9.89074	35,1	38 57 40.07
.681	.62957	77,7	.77694	63,0	.79904	53,6	.89039	35,2	39 01 06.33
.682	.63035	77,6	.77631	63,0	.79958	53,5	.89004	35,3	39 04 32.60
.683	.63112	77,6	.77568	63,1	.80011	53,4	.88968	35,3	39 07 58.86
.684	.63190	77,5	.77505	63,2	.80065	53,3	.88933	35,4	39 11 25.13
0.685	0.63267	77,4	0.77442	63,3	9.80118	53,2	9.88898	35,5	39 14 51.39
.686	.63345	77,4	.77379	63,3	.80171	53,1	.88862	35,6	39 18 17.66
.687	.63422	77,3	.77315	63,4	.80224	52,9	.88826	35,6	39 21 43.92
.688	.63499	77,3	.77252	63,5	.80277	52,8	.88791	35,7	39 25 10.19
.689	.63577	77,2	.77188	63,6	.80330	52,7	.88755	35,8	39 28 36.45
0.690	0.63654	77,1	0.77125	63,7	9.80382	52,6	9.88719	35,8	39 32 02.72
.691	.63731	77,1	.77061	63,7	.80435	52,5	.88683	35,9	39 35 28.98
.692	.63808	77,0	.76997	63,8	.80487	52,4	.88647	36,0	39 38 55.25
.693	.63885	76,9	.76933	63,9	.80540	52,3	.88611	36,1	39 42 21.51
.694	.63962	76,9	.76869	64,0	.80592	52,2	.88575	36,1	39 45 47.78
0.695	0.64039	76,8	0.76805	64,0	9.80644	52,1	9.88539	36,2	39 49 14.04
.696	.64115	76,7	.76741	64,1	.80696	52,0	.88503	36,3	39 52 40.31
.697	.64192	76,7	.76677	64,2	.80748	51,9	.88467	36,4	39 56 06.57
.698	.64269	76,6	.76613	64,3	.80800	51,8	.88430	36,4	39 59 32.83
.699	.64345	76,5	.76549	64,3	.80852	51,7	.88394	36,5	40 02 59.10
0.700	0.64422	76,5	0.76484	64,4	9.80903	51,6	9.88357	36,6	40 06 25.36
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	log $\frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
0.700	0.64422	76,5	0.76484	64,4	9.80903	51,6	9.88357	36,6	40° 06′ 25.36″
.701	.64498	76,4	.76420	64,5	.80955	51,5	.88321	36,7	40 09 51.63
.702	.64575	76,4	.76355	64,6	.81006	51,4	.88284	36,7	40 13 17.89
.703	.64651	76,3	.76291	64,7	.81057	51,2	.88247	36,8	40 16 44.16
.704	.64727	76,2	.76226	64,7	.81109	51,1	.88210	36,9	40 20 10.42
0.705	0.64803	76,2	0.76161	64,8	9.81160	51,0	9.88173	37,0	40 23 36.69
.706	.64880	76,1	.76096	64,9	.81211	50,9	.88136	37,0	40 27 02.95
.707	.64956	76,0	.76031	65,0	.81262	50,8	.88099	37,1	40 30 29.22
.708	.65032	76,0	.75966	65,0	.81312	50,7	.88062	37,2	40 33 55.48
.709	.65108	75,9	.75901	65,1	.81363	50,6	.88025	37,3	40 37 21.75
0.710	0.65183	75,8	0.75836	65,2	9.81414	50,5	9.87988	37,3	40 40 48.01
.711	.65259	75,8	.75771	65,3	.81464	50,4	.87950	37,4	40 44 14.28
.712	.65335	75,7	.75706	65,3	.81515	50,3	.87913	37,5	40 47 40.54
.713	.65411	75,6	.75640	65,4	.81565	50,2	.87875	37,6	40 51 06.81
.714	.65486	75,6	.75575	65,5	.81615	50,1	.87838	37,6	40 54 33.07
0.715	0.65562	75,5	0.75509	65,6	9.81665	50,0	9.87800	37,7	40 57 59.34
.716	.65637	75,4	.75444	65,6	.81715	49,9	.87762	37,8	41 01 25.60
.717	.65713	75,4	.75378	65,7	.81765	49,8	.87724	37,9	41 04 51.87
.718	.65788	75,3	.75312	65,8	.81815	49,7	.87687	37,9	41 08 18.13
.719	.65863	75,2	.75246	65,9	.81864	49,6	.87649	38,0	41 11 44.40
0.720	0.65938	75,2	0.75181	65,9	9.81914	49,5	9.87611	38,1	41 15 10.66
.721	.66014	75,1	.75115	66,0	.81963	49,4	.87572	38,2	41 18 36.93
.722	.66089	75,0	.75049	66,1	.82013	49,3	.87534	38,2	41 22 03.19
.723	.66164	75,0	.74982	66,2	.82062	49,2	.87496	38,3	41 25 29.45
.724	.66239	74,9	.74916	66,2	.82111	49,1	.87458	38,4	41 28 55.72
0.725	0.66314	74,8	0.74850	66,3	9.82160	49,0	9.87419	38,5	41 32 21.98
.726	.66388	74,8	.74784	66,4	.82209	48,9	.87381	38,6	41 35 48.25
.727	.66463	74,7	.74717	66,5	.82258	48,8	.87342	38,6	41 39 14.51
.728	.66538	74,7	.74651	66,5	.82307	48,7	.87303	38,7	41 42 40.78
.729	.66612	74,6	.74584	66,6	.82356	48,6	.87265	38,8	41 46 07.04
0.730	0.66687	74,5	0.74517	66,7	9.82404	48,5	9.87226	38,9	41 49 33.31
.731	.66761	74,5	.74451	66,8	.82453	48,4	.87187	38,9	41 52 59.57
.732	.66836	74,4	.74384	66,8	.82501	48,3	.87148	39,0	41 56 25.84
.733	.66910	74,3	.74317	66,9	.82549	48,2	.87109	39,1	41 59 52.10
.734	.66984	74,3	.74250	67,0	.82597	48,1	.87070	39,2	42 03 18.37
0.735	0.67059	74,2	0.74183	67,1	9.82646	48,0	9.87030	39,3	42 06 44.63
.736	.67133	74,1	.74116	67,1	.82694	47,9	.86991	39,3	42 10 10.90
.737	.67207	74,0	.74049	67,2	.82741	47,9	.86952	39,4	42 13 37.16
.738	.67281	74,0	.73982	67,3	.82789	47,8	.86912	39,5	42 17 03.43
.739	.67355	73,9	.73914	67,4	.82837	47,7	.86873	39,6	42 20 29.69
0.740	0.67429	73,8	0.73847	67,4	9.82885	47,6	9.86833	39,7	42 23 55.96
.741	.67503	73,8	.73779	67,5	.82932	47,5	.86794	39,7	42 27 22.22
.742	.67576	73,7	.73712	67,6	.82979	47,4	.86754	39,8	42 30 48.49
.743	.67650	73,6	.73644	67,7	.83027	47,3	.86714	39,9	42 34 14.75
.744	.67724	73,6	.73577	67,7	.83074	47,2	.86674	40,0	42 37 41.02
0.745	0.67797	73,5	0.73509	67,8	9.83121	47,1	9.86634	40,0	42 41 07.28
.746	.67871	73,4	.73441	67,9	.83168	47,0	.86594	40,1	42 44 33.55
.747	.67944	73,4	.73373	67,9	.83215	46,9	.86554	40,2	42 47 59.81
.748	.68017	73,3	.73305	68,0	.83262	46,8	.86513	40,3	42 51 26.08
.749	.68091	73,2	.73237	68,1	.83309	46,7	.86473	40,4	42 54 52.34
0.750	0.68164	73,2	0.73169	68,2	9.83355	46,6	9.86433	40,5	42 58 18.60
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
0.750	0.68164	73,2	0.73169	68,2	9.83355	46,6	9.86433	40,5	42° 58′ 18.″60
.751	.68237	73,1	.73101	68,2	.83402	46,5	.86392	40,5	43 01 44.87
.752	.68310	73,0	.73032	68,3	.83448	46,4	.86352	40,6	43 05 11.13
.753	.68383	73,0	.72964	68,4	.83495	46,3	.86311	40,7	43 08 37.40
.754	.68456	72,9	.72896	68,5	.83541	46,2	.86270	40,8	43 12 03.66
0.755	0.68529	72,8	0.72827	68,5	9.83587	46,2	9.86229	40,9	43 15 29.93
.756	.68602	72,8	.72759	68,6	.83633	46,1	.86188	40,9	43 18 56.19
.757	.68674	72,7	.72690	68,7	.83679	46,0	.86147	41,0	43 22 22.46
.758	.68747	72,6	.72621	68,7	.83725	45,9	.86106	41,1	43 25 48.72
.759	.68820	72,6	.73552	68,8	.83771	45,8	.86065	41,2	43 29 14.99
0.760	0.68892	72,5	0.72484	68,9	9.83817	45,7	9.86024	41,3	43 32 41.25
.761	.68965	72,4	.72415	69,0	.83863	45,6	.85983	41,4	43 36 07.52
.762	.69037	72,3	.72346	69,0	.83908	45,5	.85941	41,4	43 39 33.78
.763	.69109	72,3	.72277	69,1	.83954	45,4	.85900	41,5	43 43 00.05
.764	.69182	72,2	.72207	69,2	.83999	45,3	.85858	41,6	43 46 26.31
0.765	0.69254	72,1	0.72138	69,3	9.84044	45,2	9.85817	41,7	43 49 52.58
.766	.69326	72,1	.72069	69,3	.84089	45,1	.85775	41,8	43 53 18.84
.767	.69398	72,0	.72000	69,4	.84135	45,1	.85733	41,9	43 56 45.11
.768	.69470	71,9	.71930	69,5	.84180	45,0	.85691	41,9	44 00 11.37
.769	.69542	71,9	.71861	69,5	.84225	44,9	.85649	42,0	44 03 37.64
0.770	0.69614	71,8	0.71791	69,6	9.84269	44,8	9.85607	42,1	44 07 03.90
.771	.69685	71,7	.71721	69,7	.84314	44,7	.85565	42,2	44 10 30.17
.772	.69757	71,7	.71652	69,8	.84359	44,6	.85523	42,3	44 13 56.43
.773	.69829	71,6	.71582	69,8	.84403	44,5	.85480	42,4	44 17 22.70
.774	.69900	71,5	.71512	69,9	.84448	44,4	.85438	42,5	44 20 48.96
0.775	0.69972	71,4	0.71442	70,0	9.84492	44,3	9.85395	42,5	44 24 15.22
.776	.70043	71,4	.71372	70,0	.84536	44,3	.85353	42,6	44 27 41.49
.777	.70114	71,3	.71302	70,1	.84581	44,2	.85310	42,7	44 31 07.75
.778	.70186	71,2	.71232	70,2	.84625	44,1	.85267	42,8	44 34 34.02
.779	.70257	71,2	.71162	70,3	.84669	44,0	.85225	42,9	44 38 00.28
0.780	0.70328	71,1	0.71091	70,3	9.84713	43,9	9.85182	43,0	44 41 26.55
.781	.70399	71,0	.71021	70,4	.84757	43,8	.85139	43,0	44 44 52.81
.782	.70470	71,0	.70951	70,5	.84800	43,7	.85096	43,1	44 48 19.08
.783	.70541	70,9	.70880	70,5	.84844	43,6	.85052	43,2	44 51 45.34
.784	.70612	70,8	.70809	70,6	.84888	43,6	.85009	43,3	44 55 11.61
0.785	0.70683	70,7	0.70739	70,7	9.84931	43,5	9.84966	43,4	44 58 37.87
.786	.70753	70,7	.70668	70,8	.84975	43,4	.84922	43,5	45 02 04.14
.787	.70824	70,6	.70597	70,8	.85018	43,3	.84879	43,6	45 05 30.40
.788	.70894	70,5	.70526	70,9	.85061	43,2	.84835	43,7	45 08 56.67
.789	.70965	70,5	.70456	71,0	.85104	43,1	.84792	43,7	45 12 22.93
0.790	0.71035	70,4	0.70385	71,0	9.85147	43,0	9.84748	43,8	45 15 49.20
.791	.71106	70,3	.70313	71,1	.85190	42,9	.84704	43,9	45 19 15.46
.792	.71176	70,2	.70242	71,2	.85233	42,9	.84660	44,0	45 22 41.73
.793	.71246	70,2	.70171	71,2	.85276	42,8	.84616	44,1	45 26 07.99
.794	.71316	70,1	.70100	71,3	.85319	42,7	.84572	44,2	45 29 34.26
0.795	0.71386	70,0	0.70028	71,4	9.85362	42,6	9.84527	44,3	45 33 00.52
.796	.71456	70,0	.69957	71,5	.85404	42,5	.84483	44,4	45 36 26.79
.797	.71526	69,9	.69886	71,5	.85447	42,4	.84439	44,4	45 39 53.05
.798	.71596	69,8	.69814	71,6	.85489	42,3	.84394	44,5	45 43 19.32
.799	.71666	69,7	.69742	71,7	.85531	42,3	.84350	44,6	45 46 45.58
0.800	0.71736	69,7	0.69671	71,7	9.85573	42,2	9.84305	44,7	45 50 11.84
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u (° ′ ″)
0.800	0.71736	69,7	0.69671	71,7	9.85573	42,2	9.84305	44,7	45 50 11.84
.801	.71805	69,6	.69599	71,8	.85616	42,1	.84260	44,8	45 53 38.11
.802	.71875	69,5	.69527	71,9	.85658	42,0	.84215	44,9	45 57 04.37
.803	.71944	69,5	.69455	71,9	.85700	41,9	.84170	45,0	46 00 30.64
.804	.72014	69,4	.69383	72,0	.85742	41,8	.84125	45,1	46 03 56.90
0.805	0.72083	69,3	0.69311	72,1	9.85783	41,8	9.84080	45,2	46 07 23.17
.806	.72152	69,2	.69239	72,2	.85825	41,7	.84035	45,3	46 10 49.43
.807	.72222	69,2	.69167	72,2	.85867	41,6	.83990	45,3	46 14 15.70
.808	.72291	69,1	.69095	72,3	.85908	41,5	.83944	45,4	46 17 41.96
.809	.72360	69,0	.69022	72,4	.85950	41,4	.83899	45,5	46 21 08.23
0.810	0.72429	68,9	0.68950	72,4	9.85991	41,3	9.83853	45,6	46 24 34.49
.811	.72498	68,9	.68877	72,5	.86032	41,3	.83808	45,7	46 28 00.76
.812	.72566	68,8	.68805	72,6	.86074	41,2	.83762	45,8	46 31 27.02
.813	.72635	68,7	.68732	72,6	.86115	41,1	.83716	45,9	46 34 53.29
.814	.72704	68,7	.68660	72,7	.86156	41,0	.83670	46,0	46 38 19.55
0.815	0.72773	68,6	0.68587	72,8	9.86197	40,9	9.83624	46,1	46 41 45.82
.816	.72841	68,5	.68514	72,8	.86238	40,8	.83578	46,2	46 45 12.08
.817	.72910	68,4	.68441	72,9	.86278	40,8	.83532	46,3	46 48 38.35
.818	.72978	68,4	.68368	73,0	.86319	40,7	.83485	46,4	46 52 04.61
.819	.73046	68,3	.68295	73,0	.86360	40,6	.83439	46,5	46 55 30.88
0.820	0.73115	68,2	0.68222	73,1	9.86400	40,5	9.83393	46,5	46 58 57.14
.821	.73183	68,1	.68149	73,2	.86441	40,4	.83346	46,6	47 02 23.41
.822	.73251	68,1	.68076	73,3	.86481	40,4	.83299	46,7	47 05 49.67
.823	.73319	68,0	.68002	73,3	.86522	40,3	.83252	46,8	47 09 15.94
.824	.73387	67,9	.67929	73,4	.86562	40,2	.83206	46,9	47 12 42.20
0.825	0.73455	67,9	0.67856	73,5	9.86602	40,1	9.83159	47,0	47 16 08.47
.826	.73523	67,8	.67782	73,5	.86642	40,0	.83112	47,1	47 19 34.73
.827	.73590	67,7	.67709	73,6	.86682	40,0	.83064	47,2	47 23 00.99
.828	.73658	67,6	.67635	73,7	.86722	39,9	.83017	47,3	47 26 27.26
.829	.73726	67,6	.67561	73,7	.86762	39,8	.82970	47,4	47 29 53.52
0.830	0.73793	67,5	0.67488	73,8	9.86802	39,7	9.82922	47,5	47 33 19.79
.831	.73861	67,4	.67414	73,9	.86841	39,6	.82875	47,6	47 36 46.05
.832	.73928	67,3	.67340	73,9	.86881	39,6	.82827	47,7	47 40 12.32
.833	.73995	67,3	.67266	74,0	.86920	39,5	.82779	47,8	47 43 38.58
.834	.74062	67,2	.67192	74,1	.86960	39,4	.82732	47,9	47 47 04.85
0.835	0.74130	67,1	0.67118	74,1	9.86999	39,3	9.82684	48,0	47 50 31.11
.836	.74197	67,0	.67044	74,2	.87038	39,2	.82636	48,1	47 53 57.38
.837	.74264	67,0	.66969	74,3	.87078	39,2	.82588	48,2	47 57 23.64
.838	.74331	66,9	.66895	74,3	.87117	39,1	.82539	48,3	48 00 49.91
.839	.74398	66,8	.66821	74,4	.87156	39,0	.82491	48,4	48 04 16.17
0.840	0.74464	66,7	0.66746	74,5	9.87195	38,9	9.82443	48,5	48 07 42.44
.841	.74531	66,7	.66672	74,5	.87234	38,8	.82394	48,5	48 11 08.70
.842	.74598	66,6	.66597	74,6	.87273	38,8	.82346	48,6	48 14 34.97
.843	.74664	66,5	.66523	74,7	.87311	38,7	.82297	48,7	48 18 01.23
.844	.74731	66,4	.66448	74,7	.87350	38,6	.82248	48,8	48 21 27.50
0.845	0.74797	66,4	0.66373	74,8	9.87388	38,5	9.82199	48,9	48 24 53.76
.846	.74863	66,3	.66298	74,9	.87427	38,5	.82150	49,0	48 28 20.03
.847	.74930	66,2	.66223	74,9	.87465	38,4	.82101	49,1	48 31 46.29
.848	.74996	66,1	.66148	75,0	.87504	38,4	.82052	49,2	48 35 12.56
.849	.75062	66,1	.66073	75,1	.87542	38,2	.82003	49,3	48 38 38.82
0.850	0.75128	66,0	0.65998	75,1	9.87580	38,2	9.81953	49,4	48 42 05.09
u	−i sinh iu	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log \frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
0.850	0.75128	66,0	0.65998	75,1	9.87580	38,2	9.81953	49,4	48° 42′ 05″.09
.851	.75194	65,9	.65923	75,2	.87618	38,1	.81904	49,5	48 45 31.35
.852	.75260	65,8	.65848	75,3	.87656	38,0	.81854	49,6	48 48 57.61
.853	.75326	65,8	.65773	75,3	.87694	37,9	.81805	49,7	48 52 23.88
.854	.75391	65,7	.65697	75,4	.87732	37,8	.81755	49,8	48 55 50.14
0.855	0.75457	65,6	0.65622	75,5	9.87770	37,8	9.81705	49,9	48 59 16.41
.856	.75523	65,5	.65546	75,5	.87808	37,7	.81655	50,0	49 02 42.67
.857	.75588	65,5	.65471	75,6	.87845	37,6	.81605	50,1	49 06 08.94
.858	.75654	65,4	.65395	75,7	.87883	37,5	.81555	50,2	49 09 35.20
.859	.75719	65,3	.65320	75,7	.87920	37,5	.81504	50,3	49 13 01.47
0.860	0.75784	65,2	0.65244	75,8	9.87958	37,4	9.81454	50,4	49 16 27.73
.861	.75849	65,2	.65168	75,8	.87995	37,3	.81403	50,5	49 19 54.00
.862	.75915	65,1	.65092	75,9	.88033	37,2	.81353	50,7	49 23 20.26
.863	.75980	65,0	.65016	76,0	.88070	37,2	.81302	50,8	49 26 46.53
.864	.76045	64,9	.64940	76,0	.88107	37,1	.81251	50,9	49 30 12.79
0.865	0.76110	64,9	0.64864	76,1	9.88144	37,0	9.81200	51,0	49 33 39.06
.866	.76174	64,8	.64788	76,2	.88181	36,9	.81149	51,1	49 37 05.32
.867	.76239	64,7	.64712	76,2	.88218	36,9	.81098	51,2	49 40 31.59
.868	.76304	64,6	.64635	76,3	.88255	36,8	.81047	51,3	49 43 57.85
.869	.76368	64,6	.64559	76,4	.88291	36,7	.80996	51,4	49 47 24.12
0.870	0.76433	64,5	0.64483	76,4	9.88328	36,6	9.80944	51,5	49 50 50.38
.871	.76497	64,4	.64406	76,5	.88365	36,6	.80893	51,6	49 54 16.65
.872	.76562	64,3	.64330	76,6	.88401	36,5	.80841	51,7	49 57 42.91
.873	.76626	64,3	.64253	76,6	.88438	36,4	.80789	51,8	50 01 09.18
.874	.76690	64,2	.64176	76,7	.88474	36,3	.80738	51,9	50 04 35.44
0.875	0.76754	64,1	0.64100	76,8	9.88510	36,3	9.80686	52,0	50 08 01.71
.876	.76818	64,0	.64023	76,8	.88547	36,2	.80634	52,1	50 11 27.97
.877	.76882	63,9	.63946	76,9	.88583	36,1	.80581	52,2	50 14 54.24
.878	.76946	63,9	.63869	76,9	.88619	36,0	.80529	52,3	50 18 20.50
.879	.77010	63,8	.63792	77,0	.88655	36,0	.80477	52,4	50 21 46.76
0.880	0.77074	63,7	0.63715	77,1	9.88691	35,9	9.80424	52,5	50 25 13.03
.881	.77138	63,6	.63638	77,1	.88727	35,8	.80372	52,6	50 28 39.29
.882	.77201	63,6	.63561	77,2	.88762	35,8	.80319	52,7	50 32 05.56
.883	.77265	63,5	.63484	77,3	.88798	35,7	.80266	52,9	50 35 31.82
.884	.77328	63,4	.63406	77,3	.88834	35,6	.80213	53,0	50 38 58.09
0.885	0.77391	63,3	0.63329	77,4	9.88869	35,5	9.80160	53,1	50 42 24.35
.886	.77455	63,3	.63252	77,5	.88905	35,5	.80107	53,2	50 45 50.62
.887	.77518	63,2	.63174	77,5	.88940	35,4	.80054	53,3	50 49 16.88
.888	.77581	63,1	.63096	77,6	.88976	35,3	.80001	53,4	50 52 43.15
.889	.77644	63,0	.63019	77,6	.89011	35,2	.79947	53,5	50 56 09.41
0.890	0.77707	62,9	0.62941	77,7	9.89046	35,2	9.79894	53,6	50 59 35.68
.891	.77770	62,9	.62863	77,8	.89081	35,1	.79840	53,7	51 03 01.94
.892	.77833	62,8	.62786	77,8	.89116	35,0	.79786	53,8	51 06 28.21
.893	.77896	62,7	.62708	77,9	.89151	35,0	.79732	53,9	51 09 54.47
.894	.77958	62,6	.62630	78,0	.89186	34,9	.79678	54,1	51 13 20.74
0.895	0.78021	62,6	0.62552	78,0	9.89221	34,8	9.79624	54,2	51 16 47.00
.896	.78083	62,5	.62474	78,1	.89256	34,7	.79570	54,3	51 20 13.27
.897	.78146	62,4	.62396	78,1	.89291	34,7	.79515	54,4	51 23 39.53
.898	.78208	62,3	.62318	78,2	.89325	34,6	.79461	54,5	51 27 05.80
.899	.78270	62,2	.62239	78,3	.89360	34,5	.79406	54,6	51 30 32.06
0.900	0.78333	62,2	0.62161	78,3	9.89394	34,5	9.79352	54,7	51 33 58.33
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
0.900	0.78333	62,2	0.62161	78,3	9.89394	34,5	9.79352	54,7	51 33 58.33
.901	.78395	62,1	.62083	78,4	.89429	34,4	.79297	54,8	51 37 24.59
.902	.78457	62,0	.62004	78,5	.89463	34,3	.79242	55,0	51 40 50.86
.903	.78519	61,9	.61926	78,5	.89497	34,3	.79187	55,1	51 44 17.12
.904	.78581	61,8	.61847	78,6	.89532	34,2	.79132	55,2	51 47 43.38
0.905	0.78643	61,8	0.61769	78,6	9.89566	34,1	9.79077	55,3	51 51 09.65
.906	.78704	61,7	.61690	78,7	.89600	34,0	.79021	55,4	51 54 35.91
.907	.78766	61,6	.61611	78,8	.89634	34,0	.78966	55,5	51 58 02.18
.908	.78827	61,5	.61532	78,8	.89668	33,9	.78910	55,6	52 01 28.44
.909	.78889	61,5	.61453	78,9	.89702	33,8	.78855	55,8	52 04 54.71
0.910	0.78950	61,4	0.61375	79,0	9.89735	33,8	9.78799	55,9	52 08 20.97
.911	.79012	61,3	.61296	79,0	.89769	33,7	.78743	56,0	52 11 47.24
.912	.79073	61,2	.61217	79,1	.89803	33,6	.78687	56,1	52 15 13.50
.913	.79134	61,1	.61137	79,1	.89836	33,6	.78631	56,2	52 18 39.77
.914	.79195	61,1	.61058	79,2	.89870	33,5	.78574	56,3	52 22 06.03
0.915	0.79256	61,0	0.60979	79,3	9.89903	33,4	9.78518	56,4	52 25 32.30
.916	.79317	60,9	.60900	79,3	.89937	33,3	.78462	56,6	52 28 58.56
.917	.79378	60,8	.60820	79,4	.89970	33,3	.78405	56,7	52 32 24.83
.918	.79439	60,7	.60741	79,4	.90003	33,2	.78348	56,8	52 35 51.09
.919	.79500	60,7	.60662	79,5	.90036	33,1	.78291	56,9	52 39 17.36
0.920	0.79560	60,6	0.60582	79,6	9.90070	33,1	9.78234	57,0	52 42 43.62
.921	.79621	60,5	.60502	79,6	.90103	33,0	.78177	57,2	52 46 09.89
.922	.79681	60,4	.60423	79,7	.90136	32,9	.78120	57,3	52 49 36.15
.923	.79742	60,3	.60343	79,7	.90168	32,9	.78063	57,4	52 53 02.42
.924	.79802	60,3	.60263	79,8	.90201	32,8	.78005	57,5	52 56 28.68
0.925	0.79862	60,2	0.60183	79,9	9.90234	32,7	9.77948	57,6	52 59 54.95
.926	.79922	60,1	.60104	79,9	.90267	32,7	.77890	57,7	53 03 21.21
.927	.79982	60,0	.60024	80,0	.90299	32,6	.77832	57,9	53 06 47.48
.928	.80042	59,9	.59944	80,0	.90332	32,5	.77774	58,0	53 10 13.74
.929	.80102	59,9	.59864	80,1	.90364	32,5	.77716	58,1	53 13 40.01
0.930	0.80162	59,8	0.59783	80,2	9.90397	32,4	9.77658	58,2	53 17 06.27
.931	.80222	59,7	.59703	80,2	.90429	32,3	.77600	58,4	53 20 32.53
.932	.80281	59,6	.59623	80,3	.90461	32,3	.77541	58,5	53 23 58.80
.933	.80341	59,5	.59543	80,3	.90494	32,2	.77483	58,6	53 27 25.06
.934	.80400	59,5	.59462	80,4	.90526	32,1	.77424	58,7	53 30 51.33
0.935	0.80460	59,4	0.59382	80,5	9.90558	32,1	9.77365	58,8	53 34 17.59
.936	.80519	59,3	.59301	80,5	.90590	32,0	.77306	59,0	53 37 43.86
.937	.80579	59,2	.59221	80,6	.90622	31,9	.77247	59,1	53 41 10.12
.938	.80638	59,1	.59140	80,6	.90654	31,9	.77188	59,2	53 44 36.39
.939	.80697	59,1	.59060	80,7	.90686	31,8	.77129	59,3	53 48 02.65
0.940	0.80756	59,0	0.58979	80,8	9.90717	31,7	9.77070	59,5	53 51 28.92
.941	.80815	58,9	.58898	80,8	.90749	31,7	.77010	59,6	53 54 55.18
.942	.80874	58,8	.58817	80,9	.90781	31,6	.76950	59,7	53 58 21.45
.943	.80932	58,7	.58736	80,9	.90812	31,5	.76891	59,8	54 01 47.71
.944	.80991	58,7	.58655	81,0	.90844	31,5	.76831	60,0	54 05 13.98
0.945	0.81050	58,6	0.58574	81,0	9.90875	31,4	9.76771	60,1	54 08 40.24
.946	.81108	58,5	.58493	81,1	.90906	31,3	.76711	60,2	54 12 06.51
.947	.81167	58,4	.58412	81,2	.90938	31,3	.76650	60,3	54 15 32.77
.948	.81225	58,3	.58331	81,2	.90969	31,2	.76590	60,5	54 18 59.04
.949	.81283	58,2	.58250	81,3	.91000	31,1	.76529	60,6	54 22 25.30
0.950	0.81342	58,2	0.58168	81,3	9.91031	31,1	9.76469	60,7	54 25 51.57
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	log (sinh iu / i)	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
									° ′ ″
0.950	0.81342	58,2	0.58168	81,3	9.91031	31,1	9.76469	60,7	54 25 51.57
.951	.81400	58,1	.58087	81,4	.91062	31,0	.76408	60,9	54 29 17.83
.952	.81458	58,0	.58006	81,5	.91093	30,9	.76347	61,0	54 32 44.10
.953	.81516	57,9	.57924	81,5	.91124	30,9	.76286	61,1	54 36 10.36
.954	.81574	57,8	.57842	81,6	.91155	30,8	.76225	61,2	54 39 36.63
0.955	0.81631	57,8	0.57761	81,6	9.91186	30,7	9.76163	61,4	54 43 02.89
.956	.81689	57,7	.57679	81,7	.91216	30,7	.76102	61,5	54 46 29.15
.957	.81747	57,6	.57597	81,7	.91247	30,6	.76040	61,6	54 49 55.42
.958	.81804	57,5	.57516	81,8	.91278	30,5	.75979	61,8	54 53 21.68
.959	.81862	57,4	.57434	81,9	.91308	30,5	.75917	61,9	54 56 47.95
0.960	0.81919	57,4	0.57352	81,9	9.91339	30,4	9.75855	62,0	55 00 14.21
.961	0.81976	57,3	.57270	82,0	.91369	30,3	.75793	62,2	55 03 40.48
.962	.82034	57,2	.57188	82,0	.91399	30,3	.75731	62,3	55 07 06.74
.963	.82091	57,1	.57106	82,1	.91429	30,2	.75668	62,4	55 10 33.01
.964	.82148	57,0	.57024	82,1	.91460	30,1	.75606	62,6	55 13 59.27
0.965	0.82205	56,9	0.56942	82,2	9.91490	30,1	9.75543	62,7	55 17 25.54
.966	.82262	56,9	.56859	82,3	.91520	30,0	.75480	62,8	55 20 51.80
.967	.82319	56,8	.56777	82,3	.91550	29,9	.75417	63,0	55 24 18.07
.968	.82375	56,7	.56695	82,4	.91580	29,9	.75354	63,1	55 27 44.33
.969	.82432	56,6	.56612	82,4	.91610	29,8	.75291	63,2	55 31 10.60
0.970	0.82489	56,5	0.56530	82,5	9.91639	29,8	9.75228	63,4	55 34 36.86
.971	.82545	56,4	.56447	82,5	.91669	29,7	.75164	63,5	55 38 03.13
.972	.82601	56,4	.56365	82,6	.91699	29,6	.75101	63,6	55 41 29.39
.973	.82658	56,3	.56282	82,7	.91728	29,6	.75037	63,8	55 44 55.66
.974	.82714	56,2	.56200	82,7	.91758	29,5	.74973	63,9	55 48 21.92
0.975	0.82770	56,1	0.56117	82,8	9.91787	29,4	9.74909	64,1	55 51 48.19
.976	.82826	56,0	.56034	82,8	.91817	29,4	.74845	64,2	55 55 14.45
.977	.82882	56,0	.55951	82,9	.91846	29,3	.74781	64,3	55 58 40.72
.978	.82938	55,9	.55868	82,9	.91875	29,2	.74717	64,5	56 02 06.98
.979	.82994	55,8	.55785	83,0	.91905	29,2	.74652	64,6	56 05 33.25
0.980	0.83050	55,7	0.55702	83,0	9.91934	29,1	9.74587	64,8	56 08 59.51
.981	.83105	55,6	.55619	83,1	.91963	29,1	.74522	64,9	56 12 25.77
.982	.83161	55,5	.55536	83,2	.91992	29,0	.74457	65,0	56 15 52.04
.983	.83216	55,5	.55453	83,2	.92021	28,9	.74392	65,2	56 19 18.30
.984	.83272	55,4	.55370	83,3	.92050	28,9	.74327	65,3	56 22 44.57
0.985	0.83327	55,3	0.55286	83,3	9.92079	28,8	9.74262	65,5	56 26 10.83
.986	.83382	55,2	.55203	83,4	.92107	28,8	.74196	65,6	56 29 37.10
.987	.83438	55,1	.55120	83,4	.92136	28,7	.74131	65,7	56 33 03.36
.988	.83493	55,0	.55036	83,5	.92165	28,6	.74065	65,9	56 36 29.63
.989	.83548	55,0	.54953	83,5	.92193	28,6	.73999	66,0	56 39 55.89
0.990	0.83603	54,9	0.54869	83,6	9.92222	28,5	9.73933	66,2	56 43 22.16
.991	.83657	54,8	.54785	83,7	.92250	28,4	.73866	66,3	56 46 48.42
.992	.83712	54,7	.54702	83,7	.92279	28,4	.73800	66,5	56 50 14.69
.993	.83767	54,6	.54618	83,8	.92307	28,3	.73734	66,6	56 53 40.95
.994	.83821	54,5	.54534	83,8	.92335	28,3	.73667	66,8	56 57 07.22
0.995	0.83876	54,5	0.54450	83,9	9.92364	28,2	9.73600	66,9	57 00 33.48
.996	.83930	54,4	.54366	83,9	.92392	28,1	.73533	67,0	57 03 59.75
.997	.83985	54,3	.54282	84,0	.92420	28,1	.73466	67,2	57 07 26.01
.998	.84039	54,2	.54198	84,0	.92448	28,0	.73399	67,3	57 10 52.28
.999	.84093	54,1	.54114	84,1	.92476	27,9	.73331	67,5	57 14 18.54
1.000	0.84147	54,0	0.54030	84,1	9.92504	27,9	9.73264	67,6	57 17 44.81
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	log $\frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u (° ′ ″)
1.000	0.84147	54,0	0.54030	84,1	9.92504	27,9	9.73264	67,6	57 17 44.81
.001	.84201	53,9	.53946	84,2	.92532	27,8	.73196	67,8	57 21 11.07
.002	.84255	53,9	.53862	84,3	.92560	27,8	.73128	67,9	57 24 37.34
.003	.84309	53,8	.53778	84,3	.92587	27,7	.73060	68,1	57 28 03.60
.004	.84363	53,7	.53693	84,4	.92615	27,6	.72992	68,2	57 31 29.87
1.005	0.84416	53,6	0.53609	84,4	9.92643	27,6	9.72924	68,4	57 34 56.13
.006	.84470	53,5	.53524	84,5	.92670	27,5	.72855	68,5	57 38 22.40
.007	.84523	53,4	.53440	84,5	.92698	27,5	.72787	68,7	57 41 48.66
.008	.84577	53,4	.53355	84,6	.92725	27,4	.72718	68,8	57 45 14.92
.009	.84630	53,3	.53271	84,6	.92752	27,3	.72649	69,0	57 48 41.19
1.010	0.84683	53,2	0.53186	84,7	9.92780	27,3	9.72580	69,1	57 52 07.45
.011	.84736	53,1	.53101	84,7	.92807	27,2	.72511	69,3	57 55 33.72
.012	.84789	53,0	.53017	84,8	.92834	27,2	.72441	69,5	57 58 59.98
.013	.84842	52,9	.52932	84,8	.92861	27,1	.72372	69,6	58 02 26.25
.014	.84895	52,8	.52847	84,9	.92888	27,0	.72302	69,8	58 05 52.51
1.015	0.84948	52,8	0.52762	85,0	9.92915	27,0	9.72232	69,9	58 09 18.78
.016	.85001	52,7	.52677	85,0	.92942	26,9	.72162	70,1	58 12 45.04
.017	.85053	52,6	.52592	85,1	.92969	26,9	.72092	70,2	58 16 11.31
.018	.85106	52,5	.52507	85,1	.92996	26,8	.72022	70,4	58 19 37.57
.019	.85158	52,4	.52422	85,2	.93023	26,7	.71951	70,6	58 23 03.84
1.020	0.85211	52,3	0.52337	85,2	9.93049	26,7	9.71881	70,7	58 26 30.10
.021	.85263	52,3	.52251	85,3	.93076	26,6	.71810	70,9	58 29 56.37
.022	.85315	52,2	.52166	85,3	.93103	26,6	.71739	71,0	58 33 22.63
.023	.85367	52,1	.52081	85,4	.93129	26,5	.71668	71,2	58 36 48.90
.024	.85419	52,0	.51995	85,4	.93156	26,4	.71596	71,3	58 40 15.16
1.025	0.85471	51,9	0.51910	85,5	9.93182	26,4	9.71525	71,5	58 43 41.43
.026	.85523	51,8	.51824	85,5	.93208	26,3	.71453	71,7	58 47 07.69
.027	.85575	51,7	.51739	85,6	.93235	26,3	.71382	71,8	58 50 33.96
.028	.85627	51,7	.51653	85,6	.93261	26,2	.71310	72,0	58 54 00.22
.029	.85678	51,6	.51568	85,7	.93287	26,1	.71238	72,2	58 57 26.49
1.030	0.85730	51,5	0.51482	85,7	9.93313	26,1	9.71165	72,3	59 00 52.75
.031	.85781	51,4	.51396	85,8	.93339	26,0	.71093	72,5	59 04 19.02
.032	.85833	51,3	.51310	85,8	.93365	26,0	.71020	72,6	59 07 45.28
.033	.85884	51,2	.51224	85,9	.93391	25,9	.70948	72,8	59 11 11.54
.034	.85935	51,1	.51139	85,9	.93417	25,8	.70875	73,0	59 14 37.81
1.035	0.85986	51,1	0.51053	86,0	9.93443	25,8	9.70802	73,1	59 18 04.07
.036	.86037	51,0	.50967	86,0	.93469	25,7	.70729	73,3	59 21 30.34
.037	.86088	50,9	.50881	86,1	.93494	25,7	.70655	73,5	59 24 56.60
.038	.86139	50,8	.50794	86,1	.93520	25,6	.70582	73,6	59 28 22.87
.039	.86190	50,7	.50708	86,2	.93546	25,6	.70508	73,8	59 31 49.13
1.040	0.86240	50,6	0.50622	86,2	9.93571	25,5	9.70434	74,0	59 35 15.40
.041	.86291	50,5	.50536	86,3	.93597	25,4	.70360	74,2	59 38 41.66
.042	.86341	50,4	.50449	86,3	.93622	25,4	.70286	74,3	59 42 07.93
.043	.86392	50,4	.50363	86,4	.93647	25,3	.70211	74,5	59 45 34.19
.044	.86442	50,3	.50277	86,4	.93673	25,3	.70137	74,7	59 49 00.46
1.045	0.86492	50,2	0.50190	86,5	9.93698	25,2	9.70062	74,8	59 52 26.72
.046	.86543	50,1	.50104	86,5	.93723	25,1	.69987	75,0	59 55 52.99
.047	.86593	50,0	.50017	86,6	.93748	25,1	.69912	75,2	59 59 19.25
.048	.86643	49,9	.49930	86,6	.93773	25,0	.69837	75,4	60 02 45.52
.049	.86693	49,8	.49844	86,7	.93798	25,0	.69761	75,5	60 06 11.78
1.050	0.86742	49,8	0.49757	86,7	9.93823	24,9	9.69686	75,7	60 09 38.05
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	$\log \frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u
1.050	0.86742	49,8	0.49757	86,7	9.93823	24,9	9.69686	75,7	60° 09′ 38″.05
.051	.86792	49,7	.49670	86,8	.93848	24,9	.69610	75,9	60 13 04.31
.052	.86842	49,6	.49584	86,8	.93873	24,8	.69534	76,1	60 16 30.58
.053	.86891	49,5	.49497	86,9	.93898	24,7	.69458	76,2	60 19 56.84
.054	.86941	49,4	.49410	86,9	.93922	24,7	.69381	76,4	60 23 23.11
1.055	0.86990	49,3	0.49323	87,0	9.93947	24,6	9.69305	76,6	60 26 49.37
.056	.87039	49,2	.49236	87,0	.93972	24,6	.69228	76,8	60 30 15.64
.057	.87088	49,1	.49149	87,1	.93996	24,5	.69151	77,0	60 33 41.90
.058	.87138	49,1	.49062	87,1	.94021	24,5	.69074	77,1	60 37 08.17
.059	.87187	49,0	.48974	87,2	.94045	24,4	.68997	77,3	60 40 34.43
1.060	0.87236	48,9	0.48887	87,2	9.94069	24,3	9.68920	77,5	60 44 00.69
.061	.87284	48,8	.48800	87,3	.94094	24,3	.68842	77,7	60 47 26.96
.062	.87333	48,7	.48713	87,3	.94118	24,2	.68764	77,9	60 50 53.22
.063	.87382	48,6	.48625	87,4	.94142	24,2	.68686	78,0	60 54 19.49
.064	.87430	48,5	.48538	87,4	.94166	24,1	.68608	78,2	60 57 45.75
1.065	0.87479	48,5	0.48450	87,5	9.94190	24,1	9.68530	78,4	61 01 12.02
.066	.87527	48,4	.48363	87,5	.94214	24,0	.68451	78,6	61 04 38.28
.067	.87576	48,3	.48275	87,6	.94238	23,9	.68373	78,8	61 08 04.55
.068	.87624	48,2	.48188	87,6	.94262	23,9	.68294	79,0	61 11 30.81
.069	.87672	48,1	.48100	87,7	.94286	23,8	.68215	79,2	61 14 57.08
1.070	0.87720	48,0	0.48012	87,7	9.94310	23,8	9.68135	79,3	61 18 23.34
.071	.87768	47,9	.47925	87,8	.94334	23,7	.68056	79,5	61 21 49.61
.072	.87816	47,8	.47837	87,8	.94357	23,7	.67976	79,7	61 25 15.87
.073	.87864	47,7	.47749	87,9	.94381	23,6	.67896	79,9	61 28 42.14
.074	.87911	47,7	.47661	87,9	.94405	23,6	.67816	80,1	61 32 08.40
1.075	0.87959	47,6	0.47573	88,0	9.94428	23,5	9.67736	80,3	61 35 34.67
.076	.88007	47,5	.47485	88,0	.94451	23,4	.67656	80,5	61 39 00.93
.077	.88054	47,4	.47397	88,1	.94475	23,4	.67575	80,7	61 42 27.20
.078	.88101	47,3	.47309	88,1	.94498	23,3	.67494	80,9	61 45 53.46
.079	.88149	47,2	.47221	88,1	.94522	23,3	.67414	81,1	61 49 19.73
1.080	0.88196	47,1	0.47133	88,2	9.94545	23,2	9.67332	81,3	61 52 45.99
.081	.88243	47,0	.47045	88,2	.94568	23,2	.67251	81,5	61 56 12.26
.082	.88290	47,0	.46956	88,3	.94591	23,1	.67169	81,7	61 59 38.52
.083	.88337	46,9	.46868	88,3	.94614	23,0	.67088	81,9	62 03 04.79
.084	.88384	46,8	.46780	88,4	.94637	23,0	.67006	82,1	62 06 31.05
1.085	0.88430	46,7	0.46691	88,4	9.94660	22,9	9.66924	82,3	62 09 57.31
.086	.88477	46,6	.46603	88,5	.94683	22,9	.66841	82,5	62 13 23.58
.087	.88524	46,5	.46514	88,5	.94706	22,8	.66759	82,7	62 16 49.84
.088	.88570	46,4	.46426	88,6	.94729	22,8	.66676	82,9	62 20 16.11
.089	.88616	46,3	.46337	88,6	.94751	22,7	.66593	83,1	62 23 42.37
1.090	0.88663	46,2	0.46249	88,7	9.94774	22,7	9.66510	83,3	62 27 08.64
.091	.88709	46,2	.46160	88,7	.94797	22,6	.66426	83,5	62 30 34.90
.092	.88755	46,1	.46071	88,8	.94819	22,5	.66343	83,7	62 34 01.17
.093	.88801	46,0	.45982	88,8	.94842	22,5	.66259	83,9	62 37 27.43
.094	.88847	45,9	.45894	88,8	.94864	22,4	.66175	84,1	62 40 53.70
1.095	0.88893	45,8	0.45805	88,9	9.94887	22,4	9.66091	84,3	62 44 19.96
.096	.88939	45,7	.45716	88,9	.94909	22,3	.66007	84,5	62 47 46.23
.097	.88984	45,6	.45627	89,0	.94931	22,3	.65922	84,7	62 51 12.49
.098	.89030	45,5	.45538	89,0	.94954	22,2	.65837	84,9	62 54 38.76
.099	.89075	45,4	.45449	89,1	.94976	22,2	.65752	85,1	62 58 05.02
1.100	0.89121	45,4	0.45360	89,1	9.94998	22,1	9.65667	85,3	63 01 31.29
u	−i sinh iu	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log \frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u (° ′ ″)
1.100	0.89121	45,4	0.45360	89,1	9.94998	22,1	9.65667	85,3	63 01 31.29
.101	.89166	45,3	.45270	89,2	.95020	22,0	.65581	85,5	63 04 57.55
.102	.89211	45,2	.45181	89,2	.95042	22,0	.65496	85,8	63 08 23.82
.103	.89256	45,1	.45092	89,3	.95064	21,9	.65410	86,0	63 11 50.08
.104	.89301	45,0	.45003	89,3	.95086	21,9	.65324	86,2	63 15 16.35
1.105	0.89346	44,9	0.44913	89,3	9.95108	21,8	9.65238	86,4	63 18 42.61
.106	.89391	44,8	.44824	89,4	.95130	21,8	.65151	86,6	63 22 08.88
.107	.89436	44,7	.44735	89,4	.95151	21,7	.65064	86,8	63 25 35.14
.108	.89481	44,6	.44645	89,5	.95173	21,7	.64977	87,0	63 29 01.41
.109	.89525	44,6	.44556	89,5	.95195	21,6	.64890	87,3	63 32 27.67
1.110	0.89570	44,5	0.44466	89,6	9.95216	21,6	9.64803	87,5	63 35 53.93
.111	.89614	44,4	.44377	89,6	.95238	21,5	.64715	87,7	63 39 20.20
.112	.89659	44,3	.44287	89,7	.95259	21,5	.64628	87,9	63 42 46.46
.113	.89703	44,2	.44197	89,7	.95281	21,4	.64540	88,1	63 46 12.73
.114	.89747	44,1	.44108	89,7	.95302	21,3	.64451	88,4	63 49 38.99
1.115	0.89791	44,0	0.44018	89,8	9.95323	21,3	9.64363	88,6	63 53 05.26
.116	.89835	43,9	.43928	89,8	.95345	21,2	.64274	88,8	63 56 31.52
.117	.89879	43,8	.43838	89,9	.95366	21,2	.64185	89,0	63 59 57.79
.118	.89923	43,7	.43748	89,9	.95387	21,1	.64096	89,3	64 03 24.05
.119	.89966	43,7	.43658	90,0	.95408	21,1	.64007	89,5	64 06 50.32
1.120	0.90010	43,6	0.43568	90,0	9.95429	21,0	9.63917	89,7	64 10 16.58
.121	.90054	43,5	.43478	90,1	.95450	21,0	.63827	90,0	64 13 42.85
.122	.90097	43,4	.43388	90,1	.95471	20,9	.63737	90,2	64 17 09.11
.123	.90140	43,3	.43298	90,1	.95492	20,9	.63647	90,4	64 20 35.38
.124	.90184	43,2	.43208	90,2	.95513	20,8	.63556	90,6	64 24 01.64
1.125	0.90227	43,1	0.43118	90,2	9.95534	20,8	9.63466	90,9	64 27 27.91
.126	.90270	43,0	.43027	90,3	.95554	20,7	.63375	91,1	64 30 54.17
.127	.90313	42,9	.42937	90,3	.95575	20,6	.63283	91,3	64 34 20.44
.128	.90356	42,8	.42847	90,4	.95596	20,6	.63192	91,6	64 37 46.70
.129	.90398	42,8	.42756	90,4	.95616	20,5	.63100	91,8	64 41 12.97
1.130	0.90441	42,7	0.42666	90,4	9.95637	20,5	9.63008	92,1	64 44 39.23
.131	.90484	42,6	.42576	90,5	.95657	20,4	.62916	92,3	64 48 05.50
.132	.90526	42,5	.42485	90,5	.95678	20,4	.62824	92,5	64 51 31.76
.133	.90569	42,4	.42394	90,6	.95698	20,3	.62731	92,8	64 54 58.03
.134	.90611	42,3	.42304	90,6	.95718	20,3	.62638	93,0	64 58 24.29
1.135	0.90653	42,2	0.42213	90,7	9.95738	20,2	9.62545	93,3	65 01 50.56
.136	.90696	42,1	.42123	90,7	.95759	20,2	.62451	93,5	65 05 16.82
.137	.90738	42,0	.42032	90,7	.95779	20,1	.62358	93,8	65 08 43.08
.138	.90780	41,9	.41941	90,8	.95799	20,1	.62264	94,0	65 12 09.35
.139	.90822	41,9	.41850	90,8	.95819	20,0	.62170	94,2	65 15 35.61
1.140	0.90863	41,8	0.41759	90,9	9.95839	20,0	9.62075	94,5	65 19 01.88
.141	.90905	41,7	.41669	90,9	.95859	19,9	.61981	94,7	65 22 28.14
.142	.90947	41,6	.41578	90,9	.95879	19,9	.61886	95,0	65 25 54.41
.143	.90988	41,5	.41487	91,0	.95899	19,8	.61791	95,2	65 29 20.67
.144	.91030	41,4	.41396	91,0	.95918	19,7	.61695	95,5	65 32 46.94
1.145	0.91071	41,3	0.41305	91,1	9.95938	19,7	9.61600	95,8	65 36 13.20
.146	.91112	41,2	.41214	91,1	.95958	19,6	.61504	96,0	65 39 39.47
.147	.91153	41,1	.41122	91,2	.95977	19,6	.61408	96,3	65 43 05.73
.148	.91195	41,0	.41031	91,2	.95997	19,5	.61311	96,5	65 46 32.00
.149	.91235	40,9	.40940	91,2	.96016	19,5	.61215	96,8	65 49 58.26
1.150	0.91276	40,8	0.40849	91,3	9.96036	19,4	9.61118	97,0	65 53 24.53
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	log $\frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u ° ′ ″
1.150	0.91276	40,8	0.40849	91,3	9.96036	19,4	9.61118	97,0	65 53 24.53
.151	.91317	40,8	.40757	91,3	.96055	19,4	.61021	97,3	65 56 50.79
.152	.91358	40,7	.40666	91,4	.96075	19,3	.60923	97,6	66 00 17.06
.153	.91399	40,6	.40575	91,4	.96094	19,3	.60826	97,8	66 03 43.32
.154	.91439	40,5	.40483	91,4	.96113	19,2	.60728	98,1	66 07 09.59
1.155	0.91479	40,4	0.40392	91,5	9.96132	19,2	9.60629	98,4	66 10 35.85
.156	.91520	40,3	.40300	91,5	.96152	19,1	.60531	98,6	66 14 02.12
.157	.91560	40,2	.40209	91,6	.96171	19,1	.60432	98,9	66 17 28.38
.158	.91600	40,1	.40117	91,6	.96190	19,0	.60333	99,2	66 20 54.65
.159	.91640	40,0	.40026	91,6	.96209	19,0	.60234	99,4	66 24 20.91
1.160	0.91680	39,9	0.39934	91,7	9.96228	18,9	9.60134	99,7	66 27 47.18
.161	.91720	39,8	.39842	91,7	.96246	18,9	.60034	100,0	66 31 13.44
.162	.91760	39,8	.39751	91,8	.96265	18,8	.59934	100,3	66 34 39.70
.163	.91800	39,7	.39659	91,8	.96284	18,8	.59834	100,5	66 38 05.97
.164	.91839	39,6	.39567	91,8	.96303	18,7	.59733	100,8	66 41 32.23
1.165	0.91879	39,5	0.39475	91,9	9.96322	18,7	9.59632	101,1	66 44 58.50
.166	.91918	39,4	.39383	91,9	.96340	18,6	.59531	101,4	66 48 24.76
.167	.91958	39,3	.39291	92,0	.96359	18,6	.59430	101,6	66 51 51.03
.168	.91997	39,2	.39199	92,0	.96377	18,5	.59328	101,9	66 55 17.29
.169	.92036	39,1	.39107	92,0	.96396	18,5	.59226	102,2	66 58 43.56
1.170	0.92075	39,0	0.39015	92,1	9.96414	18,4	9.59123	102,5	67 02 09.82
.171	.92114	38,9	.38923	92,1	.96433	18,4	.59021	102,8	67 05 36.09
.172	.92153	38,8	.38831	92,2	.96451	18,3	.58918	103,1	67 09 02.35
.173	.92192	38,7	.38739	92,2	.96469	18,2	.58815	103,4	67 12 28.62
.174	.92230	38,6	.38647	92,2	.96487	18,2	.58711	103,6	67 15 54.88
1.175	0.92269	38,6	0.38554	92,3	9.96506	18,1	9.58607	103,9	67 19 21.15
.176	.92307	38,5	.38462	92,3	.96524	18,1	.58503	104,2	67 22 47.41
.177	.92346	38,4	.38370	92,3	.96542	18,0	.58399	104,5	67 26 13.68
.178	.92384	38,3	.38277	92,4	.96560	18,0	.58294	104,8	67 29 39.94
.179	.92422	38,2	.38185	92,4	.96578	17,9	.58189	105,1	67 33 06.21
1.180	0.92461	38,1	0.38092	92,5	9.96596	17,9	9.58084	105,4	67 36 32.47
.181	.92499	38,0	.38000	92,5	.96614	17,8	.57978	105,7	67 39 58.74
.182	.92537	37,9	.37907	92,5	.96631	17,8	.57872	106,0	67 43 25.00
.183	.92574	37,8	.37815	92,6	.96649	17,7	.57766	106,3	67 46 51.27
.184	.92612	37,7	.37722	92,6	.96667	17,7	.57660	106,6	67 50 17.53
1.185	0.92650	37,6	0.37630	92,6	9.96684	17,6	9.57553	106,9	67 53 43.80
.186	.92687	37,5	.37537	92,7	.96702	17,6	.57446	107,2	67 57 10.06
.187	.92725	37,4	.37444	92,7	.96720	17,5	.57339	107,5	68 00 36.33
.188	.92762	37,4	.37352	92,8	.96737	17,5	.57231	107,9	68 04 02.59
.189	.92800	37,3	.37259	92,8	.96755	17,4	.57123	108,2	68 07 28.85
1.190	0.92837	37,2	0.37166	92,8	9.96772	17,4	9.57015	108,5	68 10 55.12
.191	.92874	37,1	.37073	92,9	.96789	17,3	.56906	108,8	68 14 21.38
.192	.92911	37,0	.36980	92,9	.96807	17,3	.56797	109,1	68 17 47.65
.193	.92948	36,9	.36887	92,9	.96824	17,2	.56688	109,4	68 21 13.91
.194	.92985	36,8	.36794	93,0	.96841	17,2	.56578	109,8	68 24 40.18
1.195	0.93022	36,7	0.36701	93,0	9.96858	17,1	9.56468	110,1	68 28 06.44
.196	.93058	36,6	.36608	93,1	.96875	17,1	.56358	110,4	68 31 32.71
.197	.93095	36,5	.36515	93,1	.96893	17,0	.56247	110,7	68 34 58.97
.198	.93131	36,4	.36422	93,1	.96910	17,0	.56137	111,0	68 38 25.24
.199	.93168	36,3	.36329	93,2	.96927	16,9	.56025	111,4	68 41 51.50
1.200	0.93204	36,2	0.36236	93,2	9.96943	16,9	9.55914	111,7	68 45 17.77
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	log $\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
1.200	0.93204	36,2	0.36236	93,2	9.96943	16,9	9.55914	111,7	68° 45′ 17.″77
.201	.93240	36,1	.36143	93,2	.96960	16,8	.55802	112,0	68 48 44.03
.202	.93276	36,0	.36049	93,3	.96977	16,8	.55690	112,4	68 52 10.30
.203	.93312	36,0	.35956	93,3	.96994	16,7	.55577	112,7	68 55 36.56
.204	.93348	35,9	.35863	93,3	.97011	16,7	.55464	113,0	68 59 02.83
1.205	0.93384	35,8	0.35769	93,4	9.97027	16,6	9.55351	113,4	69 02 29.09
.206	.93420	35,7	.35676	93,4	.97044	16,6	.55237	113,7	69 05 55.36
.207	.93455	35,6	.35582	93,5	.97060	16,5	.55124	114,1	69 09 21.62
.208	.93491	35,5	.35489	93,5	.97077	16,5	.55009	114,4	69 12 47.89
.209	.93526	35,4	.35395	93,5	.97093	16,4	.54895	114,8	69 16 14.15
1.210	0.93562	35,3	0.35302	93,6	9.97110	16,4	9.54780	115,1	69 19 40.42
.211	.93597	35,2	.35208	93,6	.97126	16,3	.54665	115,5	69 23 06.68
.212	.93632	35,1	.35115	93,6	.97142	16,3	.54549	115,8	69 26 32.95
.213	.93667	35,0	.35021	93,7	.97159	16,2	.54433	116,2	69 29 59.21
.214	.93702	34,9	.34927	93,7	.97175	16,2	.54317	116,5	69 33 25.47
1.215	0.93737	34,8	0.34834	93,7	9.97191	16,1	9.54200	116,9	69 36 51.74
.216	.93772	34,7	.34740	93,8	.97207	16,1	.54083	117,2	69 40 18.00
.217	.93806	34,6	.34646	93,8	.97223	16,0	.53965	117,6	69 43 44.27
.218	.93841	34,6	.34552	93,8	.97239	16,0	.53848	118,0	69 47 10.53
.219	.93876	34,5	.34458	93,9	.97255	15,9	.53730	118,3	69 50 36.80
1.220	0.93910	34,4	0.34365	93,9	9.97271	15,9	9.53611	118,7	69 54 03.06
.221	.93944	34,3	.34271	93,9	.97287	15,8	.53492	119,1	69 57 29.33
.222	.93978	34,2	.34177	94,0	.97303	15,8	.53373	119,4	70 00 55.59
.223	.94013	34,1	.34083	94,0	.97319	15,7	.53253	119,8	70 04 21.86
.224	.94047	34,0	.33989	94,0	.97334	15,7	.53133	120,2	70 07 48.12
1.225	0.94081	33,9	0.33895	94,1	9.97350	15,6	9.53013	120,5	70 11 14.39
.226	.94114	33,8	.33800	94,1	.97366	15,6	.52892	120,9	70 14 40.65
.227	.94148	33,7	.33706	94,1	.97381	15,5	.52771	121,3	70 18 06.92
.228	.94182	33,6	.33612	94,2	.97397	15,5	.52650	121,7	70 21 33.18
.229	.94215	33,5	.33518	94,2	.97412	15,5	.52528	122,1	70 24 59.44
1.230	0.94249	33,4	0.33424	94,2	9.97428	15,4	9.52406	122,5	70 28 25.71
.231	.94282	33,3	.33330	94,3	.97443	15,4	.52283	122,9	70 31 51.98
.232	.94316	33,2	.33235	94,3	.97458	15,3	.52160	123,2	70 35 18.24
.233	.94349	33,1	.33141	94,3	.97474	15,3	.52036	123,6	70 38 44.51
.234	.94382	33,0	.33047	94,4	.97489	15,2	.51913	124,0	70 42 10.77
1.235	0.94415	33,0	0.32952	94,4	9.97504	15,2	9.51788	124,4	70 45 37.04
.236	.94448	32,9	.32858	94,4	.97519	15,1	.51664	124,8	70 49 03.30
.237	.94481	32,8	.32763	94,5	.97534	15,1	.51539	125,2	70 52 29.57
.238	.94513	32,7	.32669	94,5	.97549	15,0	.51413	125,6	70 55 55.83
.239	.94546	32,6	.32574	94,5	.97564	15,0	.51287	126,1	70 59 22.09
1.240	0.94578	32,5	0.32480	94,6	9.97579	14,9	9.51161	126,5	71 02 48.36
.241	.94611	32,4	.32385	94,6	.97594	14,9	.51034	126,9	71 06 14.62
.242	.94643	32,3	.32290	94,6	.97609	14,8	.50907	127,3	71 09 40.89
.243	.94675	32,2	.32196	94,7	.97624	14,8	.50780	127,7	71 13 07.15
.244	.94708	32,1	.32101	94,7	.97638	14,7	.50652	128,1	71 16 33.42
1.245	0.94740	32,0	0.32006	94,7	9.97653	14,7	9.50524	128,6	71 19 59.68
.246	.94772	31,9	.31912	94,8	.97668	14,6	.50395	129,0	71 23 25.95
.247	.94803	31,8	.31817	94,8	.97682	14,6	.50266	129,4	71 26 52.21
.248	.94835	31,7	.31722	94,8	.97697	14,5	.50136	129,8	71 30 18.48
.249	.94867	31,6	.31627	94,9	.97711	14,5	.50006	130,3	71 33 44.74
1.250	0.94898	31,5	0.31532	94,9	9.97726	14,4	9.49875	130,7	71 37 11.01
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u ° ′ ″
1.250	0.94898	31,5	0.31532	94,9	9.97726	14,4	9.49875	130,7	71 37 11.01
.251	.94930	31,4	.31437	94,9	.97740	14,4	.49745	131,1	71 40 37.27
.252	.94961	31,3	.31342	95,0	.97755	14,3	.49613	131,6	71 44 03.54
.253	.94993	31,2	.31247	95,0	.97769	14,3	.49481	132,0	71 47 29.80
.254	.95024	31,2	.31152	95,0	.97783	14,2	.49349	132,5	71 50 56.07
1.255	0.95055	31,1	0.31057	95,1	9.97797	14,2	9.49216	132,9	71 54 22.33
.256	.95086	31,0	.30962	95,1	.97812	14,1	.49083	133,4	71 57 48.60
.257	.95117	30,9	.30867	95,1	.97826	14,1	.48950	133,8	72 01 14.86
.258	.95148	30,8	.30772	95,1	.97840	14,0	.48816	134,3	72 04 41.13
.259	.95178	30,7	.30677	95,2	.97854	14,0	.48681	134,7	72 08 07.39
1.260	0.95209	30,6	0.30582	95,2	9.97868	13,9	9.48546	135,2	72 11 33.66
.261	.95240	30,5	.30486	95,2	.97882	13,9	.48411	135,7	72 14 59.92
.262	.95270	30,4	.30391	95,3	.97896	13,9	.48275	136,1	72 18 26.19
.263	.95300	30,3	.30296	95,3	.97909	13,8	.48138	136,6	72 21 52.45
.264	.95331	30,2	.30201	95,3	.97923	13,7	.48002	137,1	72 25 18.72
1.265	0.95361	30,1	0.30105	95,4	9.97937	13,7	9.47864	137,6	72 28 44.98
.266	.95391	30,0	.30010	95,4	.97951	13,7	.47726	138,0	72 32 11.24
.267	.95421	29,9	.29914	95,4	.97964	13,6	.47588	138,5	72 35 37.51
.268	.95451	29,8	.29819	95,5	.97978	13,6	.47449	139,0	72 39 03.77
.269	.95480	29,7	.29724	95,5	.97991	13,5	.47310	139,5	72 42 30.04
1.270	0.95510	29,6	0.29628	95,5	9.98005	13,5	9.47170	140,0	72 45 56.30
.271	.95540	29,5	.29533	95,5	.98018	13,4	.47030	140,5	72 49 22.57
.272	.95569	29,4	.29437	95,6	.98032	13,4	.46889	141,0	72 52 48.83
.273	.95599	29,3	.29341	95,6	.98045	13,3	.46748	141,5	72 56 15.10
.274	.95628	29,2	.29246	95,6	.98058	13,3	.46606	142,0	72 59 41.36
1.275	0.95657	29,2	0.29150	95,7	9.98072	13,2	9.46464	142,5	73 03 07.63
.276	.95686	29,1	.29054	95,7	.98085	13,2	.46321	143,0	73 06 33.89
.277	.95715	29,0	.28959	95,7	.98098	13,1	.46178	143,5	73 10 00.16
.278	.95744	28,9	.28863	95,7	.98111	13,1	.46034	144,1	73 13 26.42
.279	.95773	28,8	.28767	95,8	.98124	13,0	.45890	144,6	73 16 52.69
1.280	0.95802	28,7	0.28672	95,8	9.98137	13,0	9.45745	145,1	73 20 18.95
.281	.95830	28,6	.28576	95,8	.98150	13,0	.45600	145,6	73 23 45.22
.282	.95859	28,5	.28480	95,9	.98163	12,9	.45454	146,2	73 27 11.48
.283	.95887	28,4	.28384	95,9	.98176	12,9	.45307	146,7	73 30 37.75
.284	.95916	28,3	.28288	95,9	.98189	12,8	.45160	147,3	73 34 04.01
1.285	0.95944	28,2	0.28192	95,9	9.98202	12,8	9.45013	147,8	73 37 30.28
.286	.95972	28,1	.28096	96,0	.98214	12,7	.44865	148,3	73 40 56.54
.287	.96000	28,0	.28000	96,0	.98227	12,7	.44716	148,9	73 44 22.81
.288	.96028	27,9	.27904	96,0	.98240	12,6	.44567	149,5	73 47 49.07
.289	.96056	27,8	.27808	96,1	.98252	12,6	.44417	150,0	73 51 15.34
1.290	0.96084	27,7	0.27712	96,1	9.98265	12,5	9.44267	150,6	73 54 41.60
.291	.96111	27,6	.27616	96,1	.98277	12,5	.44116	151,1	73 58 07.86
.292	.96139	27,5	.27520	96,1	.98290	12,4	.43965	151,7	74 01 34.13
.293	.96166	27,4	.27424	96,2	.98302	12,4	.43813	152,3	74 05 00.39
.294	.96194	27,3	.27328	96,2	.98315	12,3	.43660	152,9	74 08 26.66
1.295	0.96221	27,2	0.27231	96,2	9.98327	12,3	9.43507	153,5	74 11 52.92
.296	.96248	27,1	.27135	96,2	.98339	12,2	.43353	154,0	74 15 19.19
.297	.96275	27,0	.27039	96,3	.98351	12,2	.43199	154,6	74 18 45.45
.298	.96302	26,9	.26943	96,3	.98364	12,2	.43044	155,2	74 22 11.72
.299	.96329	26,8	.26846	96,3	.98376	12,1	.42888	155,8	74 25 37.98
1.300	0.96356	26,7	0.26750	96,4	9.98388	12,1	9.42732	156,4	74 29 04.25
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
1.300	0.96356	26,7	0.26750	96,4	9.98388	12,1	9.42732	156,4	74 29 04.25
.301	.96383	26,7	.26654	96,4	.98400	12,0	.42575	157,0	74 32 30.51
.302	.96409	26,6	.26557	96,4	.98412	12,0	.42418	157,7	74 35 56.78
.303	.96436	26,5	.26461	96,4	.98424	11,9	.42260	158,3	74 39 23.04
.304	.96462	26,4	.26364	96,5	.98436	11,9	.42102	158,9	74 42 49.31
1.305	0.96488	26,3	0.26268	96,5	9.98447	11,8	9.41942	159,5	74 46 15.57
.306	.96515	26,2	.26171	96,5	.98459	11,8	.41782	160,2	74 49 41.84
.307	.96541	26,1	.26075	96,5	.98471	11,7	.41622	160,8	74 53 08.10
.308	.96567	26,0	.25978	96,6	.98483	11,7	.41461	161,4	74 56 34.37
.309	.96593	25,9	.25882	96,6	.98494	11,6	.41299	162,1	75 00 00.63
1.310	0.96618	25,8	0.25785	96,6	9.98506	11,6	9.41137	162,7	75 03 26.90
.311	.96644	25,7	.25688	96,6	.98518	11,5	.40974	163,4	75 06 53.16
.312	.96670	25,6	.25592	96,7	.98529	11,5	.40810	164,0	75 10 19.43
.313	.96695	25,5	.25495	96,7	.98541	11,5	.40646	164,7	75 13 45.69
.314	.96721	25,4	.25398	96,7	.98552	11,4	.40481	165,4	75 17 11.96
1.315	0.96746	25,3	0.25302	96,7	9.98563	11,4	9.40315	166,1	75 20 38.22
.316	.96771	25,2	.25205	96,8	.98575	11,3	.40148	166,7	75 24 04.49
.317	.96797	25,1	.25108	96,8	.98586	11,3	.39981	167,4	75 27 30.75
.318	.96822	25,0	.25011	96,8	.98597	11,2	.39814	168,1	75 30 57.01
.319	.96847	24,9	.24914	96,8	.98608	11,2	.39645	168,8	75 34 23.28
1.320	0.96872	24,8	0.24818	96,9	9.98620	11,1	9.39476	169,5	75 37 49.54
.321	.96896	24,7	.24721	96,9	.98631	11,1	.39306	170,2	75 41 15.81
.322	.96921	24,6	.24624	96,9	.98642	11,0	.39135	170,9	75 44 42.07
.323	.96946	24,5	.24527	96,9	.98653	11,0	.38964	171,7	75 48 08.34
.324	.96970	24,4	.24430	97,0	.98664	10,9	.38792	172,4	75 51 34.60
1.325	0.96994	24,3	0.24333	97,0	9.98675	10,9	9.38619	173,1	75 55 00.87
.326	.97019	24,2	.24236	97,0	.98686	10,8	.38446	173,9	75 58 27.13
.327	.97043	24,1	.24139	97,0	.98696	10,8	.38272	174,6	76 01 53.40
.328	.97067	24,0	.24042	97,1	.98707	10,8	.38097	175,3	76 05 19.66
.329	.97091	23,9	.23945	97,1	.98718	10,7	.37921	176,1	76 08 45.93
1.330	0.97115	23,8	0.23848	97,1	9.98729	10,7	9.37744	176,9	76 12 12.19
.331	.97139	23,8	.23750	97,1	.98739	10,6	.37567	177,6	76 15 38.46
.332	.97162	23,7	.23653	97,2	.98750	10,6	.37389	178,4	76 19 04.72
.333	.97186	23,6	.23556	97,2	.98760	10,5	.37210	179,2	76 22 30.99
.334	.97209	23,5	.23459	97,2	.98771	10,5	.37031	180,0	76 25 57.25
1.335	0.97233	23,4	0.23362	97,2	9.98781	10,4	9.36851	180,8	76 29 23.52
.336	.97256	23,3	.23264	97,3	.98792	10,4	.36669	181,6	76 32 49.78
.337	.97279	23,2	.23167	97,3	.98802	10,3	.36487	182,4	76 36 16.05
.338	.97303	23,1	.23070	97,3	.98812	10,3	.36305	183,2	76 39 42.31
.339	.97326	23,0	.22973	97,3	.98823	10,3	.36121	184,0	76 43 08.58
1.340	0.97348	22,9	0.22875	97,3	9.98833	10,2	9.35937	184,8	76 46 34.84
.341	.97371	22,8	.22778	97,4	.98843	10,2	.35751	185,7	76 50 01.11
.342	.97394	22,7	.22681	97,4	.98853	10,1	.35565	186,5	76 53 27.37
.343	.97417	22,6	.22583	97,4	.98863	10,1	.35378	187,3	76 56 53.63
.344	.97439	22,5	.22486	97,4	.98873	10,0	.35191	188,2	77 00 19.90
1.345	0.97462	22,4	0.22388	97,5	9.98883	10,0	9.35002	189,1	77 03 46.16
.346	.97484	22,3	.22291	97,5	.98893	9,9	.34813	189,9	77 07 12.43
.347	.97506	22,2	.22193	97,5	.98903	9,9	.34622	190,8	77 10 38.69
.348	.97528	22,1	.22096	97,5	.98913	9,8	.34431	191,7	77 14 04.96
.349	.97550	22,0	.21998	97,6	.98923	9,8	.34239	192,6	77 17 31.22
1.350	0.97572	21,9	0.21901	97,6	9.98933	9,7	9.34046	193,5	77 20 57.49
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
									° ′ ″
1.350	0.97572	21,9	0.21901	97,6	9.98933	9,7	9.34046	193,5	77 20 57.49
.351	.97594	21,8	.21803	97,6	.98942	9,7	.33852	194,4	77 24 23.75
.352	.97616	21,7	.21705	97,6	.98952	9,7	.33657	195,3	77 27 50.02
.353	.97638	21,6	.21608	97,6	.98962	9,6	.33461	196,2	77 31 16.28
.354	.97659	21,5	.21510	97,7	.98971	9,6	.33264	197,2	77 34 42.55
1.355	0.97681	21,4	0.21413	97,7	9.98981	9,5	9.33067	198,1	77 38 08.81
.356	.97702	21,3	.21315	97,7	.98990	9,5	.32868	199,1	77 41 35.08
.357	.97723	21,2	.21217	97,7	.99000	9,4	.32669	200,0	77 45 01.34
.358	.97744	21,1	.21119	97,7	.99009	9,4	.32468	201,0	77 48 27.61
.359	.97765	21,0	.21022	97,8	.99019	9,3	.32267	202,0	77 51 53.87
1.360	0.97786	20,9	0.20924	97,8	9.99028	9,3	9.32064	203,0	77 55 20.14
.361	.97807	20,8	.20826	97,8	.99037	9,2	.31861	204,0	77 58 46.40
.362	.97828	20,7	.20728	97,8	.99046	9,2	.31656	205,0	78 02 12.67
.363	.97849	20,6	.20630	97,8	.99056	9,2	.31451	206,0	78 05 38.93
.364	.97869	20,5	.20533	97,9	.99065	9,1	.31244	207,0	78 09 05.20
1.365	0.97890	20,4	0.20435	97,9	9.99074	9,1	9.31037	208,0	78 12 31.46
.366	.97910	20,3	.20337	97,9	.99083	9,0	.30828	209,1	78 15 57.73
.367	.97931	20,2	.20239	97,9	.99092	9,0	.30619	210,1	78 19 23.99
.368	.97951	20,1	.20141	98,0	.99101	8,9	.30408	211,2	78 22 50.25
.369	.97971	20,0	.20043	98,0	.99110	8,9	.30196	212,3	78 26 16.52
1.370	0.97991	19,9	0.19945	98,0	9.99119	8,8	9.29983	213,4	78 29 42.78
.371	.98011	19,8	.19847	98,0	.99127	8,8	.29769	214,5	78 33 09.05
.372	.98031	19,7	.19749	98.0	.99136	8,7	.29554	215,6	78 36 35.31
.373	.98050	19,7	.19651	98,1	.99145	8,7	.29338	216,7	78 40 01.58
.374	.98070	19,6	.19553	98,1	.99154	8,7	.29121	217,8	78 43 27.84
1.375	0.98089	19,5	0.19455	98,1	9.99162	8,6	9.28903	219,0	78 46 54.11
.376	.98109	19,4	.19357	98,1	.99171	8,6	.28683	220,1	78 50 20.37
.377	.98128	19,3	.19259	98,1	.99179	8,5	.28462	221,3	78 53 46.64
.378	.98147	19,2	.19160	98,1	.99188	8,5	.28240	222,5	78 57 12.90
.379	.98166	19,1	.19062	98,2	.99196	8,4	.28017	223,7	79 00 39.17
1.380	0.98185	19,0	0.18964	98,2	9.99205	8,4	9.27793	224,9	79 04 05.43
.381	.98204	18,9	.18866	98,2	.99213	8,3	.27568	226,1	79 07 31.70
.382	.98223	18,8	.18768	98,2	.99221	8,3	.27341	227,3	79 10 57.96
.383	.98242	18,7	.18669	98,2	.99230	8,3	.27113	228,5	79 14 24.23
.384	.98260	18,6	.18571	98,3	.99238	8,2	.26884	229,8	79 17 50.49
1.385	0.98279	18,5	0.18473	98,3	9.99246	8,2	9.26654	231,1	79 21 16.76
.386	.98297	18,4	.18375	98,3	.99254	8,1	.26422	232,3	79 24 43.02
.387	.98316	18,3	.18276	98,3	.99262	8,1	.26189	233,6	79 28 09.29
.388	.98334	18,2	.18178	98,3	.99270	8,0	.25955	234,9	79 31 35.55
.389	.98352	18,1	.18080	98,4	.99278	8,0	.25719	236,3	79 35 01.82
1.390	0.98370	18,0	0.17981	98,4	9.99286	7,9	9.25482	237,6	79 38 28.08
.391	.98388	17,9	.17883	98,4	.99294	7,9	.25244	238,9	79 41 54.35
.392	.98406	17,8	.17785	98,4	.99302	7,8	.25004	240,3	79 45 20.61
.393	.98424	17,7	.17686	98,4	.99310	7,8	.24763	241,7	79 48 46.88
.394	.98441	17,6	.17588	98,4	.99318	7,8	.24521	243,1	79 52 13.14
1.395	0.98459	17,5	0.17489	98,5	9.99325	7,7	9.24277	244,5	79 55 39.40
.396	.98476	17,4	.17391	98,5	.99333	7,7	.24032	245,9	79 59 05.67
.397	.98494	17,3	.17292	98,5	.99341	7,6	.23785	247,4	80 02 31.93
.398	.98511	17,2	.17194	98,5	.99348	7,6	.23537	248,8	80 05 58.20
.399	.98528	17,1	.17095	98,5	.99356	7,5	.23288	250.3	80 09 24.46
1.400	0.98545	17,0	0.16997	98,5	9.99363	7,5	9.23036	251,8	80 12 50.73
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log \frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
1.400	0.98545	17,0	0.16997	98,5	9.99363	7,5	9.23036	251,8	80° 12′ 50.″73
.401	.98562	16,9	.16898	98,6	.99371	7,4	.22784	253,3	80 16 16.99
.402	.98579	16,8	.16800	98,6	.99378	7,4	.22530	254,8	80 19 43.26
.403	.98596	16,7	.16701	98,6	.99386	7,4	.22274	256,4	80 23 09.52
.404	.98612	16,6	.16602	98,6	.99393	7,3	.22017	258,0	80 26 35.79
1.405	0.98629	16,5	0.16504	98,6	9.99400	7,3	9.21758	259,5	80 30 02.05
.406	.98645	16,4	.16405	98,6	.99408	7,2	.21498	261,1	80 33 28.32
.407	.98662	16,3	.16306	98,7	.99415	7,2	.21236	262,8	80 36 54.58
.408	.98678	16,2	.16208	98,7	.99422	7,1	.20972	264,4	80 40 20.85
.409	.98694	16,1	.16109	98,7	.99429	7,1	.20707	266,1	80 43 47.11
1.410	0.98710	16,0	0.16010	98,7	9.99436	7,0	9.20440	267,8	80 47 13.38
.411	.98726	15,9	.15912	98,7	.99443	7,0	.20172	269,5	80 50 39.64
.412	.98742	15,8	.15813	98,7	.99450	7,0	.19901	271,2	80 54 05.91
.413	.98758	15,7	.15714	98,8	.99457	6,9	.19629	272,9	80 57 32.17
.414	.98773	15,6	.15615	98,8	.99464	6,9	.19355	274,7	81 00 58.44
1.415	0.98789	15,5	0.15517	98,8	9.99471	6,8	9.19080	276,5	81 04 24.70
.416	.98804	15,4	.15418	98,8	.99478	6,8	.18802	278,3	81 07 50.97
.417	.98820	15,3	.15319	98,8	.99484	6,7	.18523	280,2	81 11 17.23
.418	.98835	15,2	.15220	98,8	.99491	6,7	.18242	282,0	81 14 43.50
.419	.98850	15,1	.15121	98,9	.99498	6,6	.17959	283,9	81 18 09.76
1.420	0.98865	15,0	0.15023	98,9	9.99504	6,6	9.17674	285,8	81 21 36.02
.421	.98880	14,9	.14924	98,9	.99511	6,6	.17388	287,8	81 25 02.29
.422	.98895	14,8	.14825	98,9	.99517	6,5	.17099	289,7	81 28 28.55
.423	.98910	14,7	.14726	98,9	.99524	6,5	.16808	291,7	81 31 54.82
.424	.98924	14,6	.14627	98,9	.99530	6,4	.16515	293,7	81 35 21.08
1.425	0.98939	14,5	0.14528	98,9	9.99537	6,4	9.16221	295,8	81 38 47.35
.426	.98954	14,4	.14429	99,0	.99543	6,3	.15924	297,8	81 42 13.61
.427	.98968	14,3	.14330	99,0	.99549	6,3	.15625	299,9	81 45 39.88
.428	.98982	14,2	.14231	99,0	.99556	6,2	.15324	302,1	81 49 06.14
.429	.98996	14,1	.14132	99,0	.99562	6,2	.15021	304,2	81 52 32.41
1.430	0.99010	14,0	0.14033	99,0	9.99568	6,2	9.14716	306,4	81 55 58.67
.431	.99024	13,9	.13934	99,0	.99574	6,1	.14408	308,6	81 59 24.94
.432	.99038	13,8	.13835	99,0	.99580	6,1	.14098	310,9	82 02 51.20
.433	.99052	13,7	.13736	99,1	.99586	6,0	.13786	313,2	82 06 17.47
.434	.99066	13,6	.13637	99,1	.99592	6,0	.13472	315,5	82 09 43.73
1.435	.99079	13,5	0.13538	99,1	9.99598	5,9	9.13155	317,8	82 13 10.00
.436	.99093	13,4	.13439	99,1	.99604	5,9	.12836	320,2	82 16 36.26
.437	.99106	13,3	.13340	99,1	.99610	5,8	.12515	322,7	82 20 02.53
.438	.99120	13,2	.13241	99,1	.96616	5,8	.12191	325,1	82 23 28.79
.439	.99133	13,1	.13142	99,1	.99622	5,8	.11865	327,6	82 26 55.06
1.440	0.99146	13,0	0.13042	99,1	9.99627	5,7	9.11536	330,1	82 30 21.32
.441	.99159	12,9	.12943	99,2	.99633	5,7	.11204	332,7	82 33 47.59
.442	.99172	12,8	.12844	99,2	.99639	5,6	.10870	335,3	82 37 13.85
.443	.99185	12,7	.12745	99,2	.99644	5,6	.10534	338,0	82 40 40.12
.444	.99197	12,6	.12646	99,2	.99650	5,5	.10194	340,7	82 44 06.38
1.445	0.99210	12,5	0.12546	99,2	9.99655	5,5	9.09852	343,4	82 47 32.65
.446	.99222	12,4	.12447	99,2	.99661	5,4	.09507	346,2	82 50 58.91
.447	.99235	12,3	.12348	99,2	.99666	5,4	.09160	349,0	82 54 25.17
.448	.99247	12,2	.12249	99,2	.99672	5,4	.08809	351,9	82 57 51.44
.449	.99259	12,1	.12150	99,3	.99677	5,3	.08456	354,8	83 01 17.70
1.450	0.99271	12,1	0.12050	99,3	9.99682	5,3	9.08100	357,8	83 04 43.97
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	$\log\frac{\sinh iu}{i}$	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	ω F₀′	cos u	ω F₀′	log sin u	ω F₀′	log cos u	ω F₀′	u
1.450	0.99271	12,1	0.12050	99,3	9.99682	5,3	9.08100	357,8	83° 04′ 43.″97
.451	.99283	12,0	.11951	99,3	.99688	5,2	.07740	360,8	83 08 10.23
.452	.99295	11,9	.11852	99,3	.99693	5,2	.07378	363,9	83 11 36.50
.453	.99307	11,8	.11752	99,3	.99698	5,1	.07013	367,0	83 15 02.76
.454	.99319	11,7	.11653	99,3	.99703	5,1	.06644	370,1	83 18 29.03
1.455	0.99330	11,6	0.11554	99,3	9.99708	5,1	9.06272	373,4	83 21 55.29
.456	.99342	11,5	.11454	99,3	.99713	5,0	.05897	376,7	83 25 21.56
.457	.99353	11,4	.11355	99,4	.99718	5,0	.05519	380,0	83 28 47.82
.458	.99365	11,3	.11256	99,4	.99723	4,9	.05137	383,4	83 32 14.09
.459	.99376	11,2	.11156	99,4	.99728	4,9	.04752	386,8	83 35 40.35
1.460	0.99387	11,1	0.11057	99,4	9.99733	4,8	9.04364	390,4	83 39 06.62
.461	.99398	11,0	.10958	99,4	.99738	4,8	.03971	394,0	83 42 32.88
.462	.99409	10,9	.10858	99,4	.99742	4,7	.03576	397,6	83 45 59.15
.463	.99420	10,8	.10759	99,4	.99747	4,7	.03176	401,3	83 49 25.41
.464	.99430	10,7	.10659	99,4	.99752	4,7	.02773	405,1	83 52 51.68
1.465	0.99441	10,6	0.10560	99,4	9.99756	4,6	9.02366	409,0	83 56 17.94
.466	.99451	10,5	.10460	99,5	.99761	4,6	.01955	412,9	83 59 44.21
.467	.99462	10,4	.10361	99,5	.99766	4,5	.01540	416,9	84 03 10.47
.468	.99472	10,3	.10262	99,5	.99770	4,5	.01121	421,0	84 06 36.74
.469	.99482	10,2	.10162	99,5	.99775	4,4	.00698	425,2	84 10 03.00
1.470	0.99492	10,1	0.10063	99,5	9.99779	4,4	9.00271	429,4	84 13 29.27
.471	.99502	10,0	.09963	99,5	.99783	4,3	8.99839	433,7	84 16 55.53
.472	.99512	9,9	.09864	99,5	.99788	4,3	.99403	438,2	84 20 21.79
.473	.99522	9,8	.09764	99,5	.99792	4,3	.98963	442,7	84 23 48.06
.474	.99532	9,7	.09665	99,5	.99796	4,2	.98518	447,3	84 27 14.32
1.475	0.99542	9,6	0.09565	99,5	9.99800	4,2	8.98068	452,0	84 30 40.59
.476	.99551	9,5	.09465	99,6	.99805	4,1	.97614	456,8	84 34 06.85
.477	.99560	9,4	.09366	99,6	.99809	4,1	.97155	461,7	84 37 33.12
.478	.99570	9,3	.09266	99,6	.99813	4,0	.96691	466,7	84 40 59.38
.479	.99579	9,2	.09167	99,6	.99817	4,0	.96222	471,8	84 44 25.65
1.480	0.99588	9,1	0.09067	99,6	9.99821	4,0	8.95747	477,0	84 47 51.91
.481	.99597	9,0	.08968	99,6	.99825	3,9	.95267	482,3	84 51 18.18
.482	.99606	8,9	.08868	99,6	.99829	3,9	.94782	487,8	84 54 44.44
.483	.99615	8,8	.08768	99,6	.99832	3,8	.94292	493,4	84 58 10.71
.484	.99624	8,7	.08669	99,6	.99836	3,8	.93796	499,1	85 01 36.97
1.485	0.99632	8,6	0.08569	99,6	9.99840	3,7	8.93294	504,9	85 05 03.24
.486	.99641	8,5	.08469	99,6	.99844	3,7	.92786	510,9	85 08 29.50
.487	.99649	8,4	.08370	99,6	.99847	3,6	.92272	517,1	85 11 55.77
.488	.99657	8,3	.08270	99,7	.99851	3,6	.91751	523,3	85 15 22.03
.489	.99666	8,2	.08171	99,7	.99855	3,6	.91225	529,8	85 18 48.30
1.490	0.99674	8,1	0.08071	99,7	9.99858	3,5	8.90692	536,3	85 22 14.56
.491	.99682	8,0	.07971	99,7	.99862	3,5	.90152	543,1	85 25 40.83
.492	.99690	7,9	.07871	99,7	.99865	3,4	.89606	550,0	85 29 07.09
.493	.99698	7,8	.07772	99,7	.99868	3,4	.89052	557,1	85 32 33.36
.494	.99705	7,7	.07672	99,7	.99872	3,3	.88491	564,4	85 35 59.62
1.495	0.99713	7,6	0.07572	99,7	9.99875	3,3	8.87923	571,9	85 39 25.89
.496	.99720	7,5	.07473	99,7	.99878	3,3	.87348	579,6	85 42 52.15
.497	.99728	7,4	.07373	99,7	.99882	3,2	.86764	587,4	85 46 18.41
.498	.99735	7,3	.07273	99,7	.99885	3,2	.86173	595,5	85 49 44.68
.499	.99742	7,2	.07173	99,7	.99888	3,1	.85573	603,9	85 53 10.94
1.500	0.99749	7,1	0.07074	99,7	9.99891	3,1	8.84965	612,4	85 56 37.21
u	−i sinh iu	ω F₀′	cosh iu	ω F₀′	log (sinh iu)/i	ω F₀′	log cosh iu	ω F₀′	u

u	sin u	$\omega F_0'$	cos u	$\omega F_0'$	log sin u	$\omega F_0'$	log cos u	$\omega F_0'$	u
1.500	0.99749	7,1	0.07074	99,7	9.99891	3,1	8.84965	612,4	85° 56′ 37.21″
.501	.99757	7,0	.06974	99,8	.99894	3,1	.84348	621,2	86 00 03.47
.502	.99763	6,9	.06874	99,8	.99897	3,0	.83722	630,3	86 03 29.74
.503	.99770	6,8	.06774	99,8	.99900	2,9	.83087	639,6	86 06 56.00
.504	.99777	6,7	.06675	99,8	.99903	2,9	.82443	649,2	86 10 22.27
1.505	0.99784	6,6	0.06575	99,8	9.99906	2,9	8.81789	659,1	86 13 48.53
.506	.99790	6,5	.06475	99,8	.99909	2,8	.81125	669,3	86 17 14.80
.507	.99797	6,4	.06375	99,8	.99912	2,8	.80450	679,8	86 20 41.06
.508	.99803	6,3	.06276	99,8	.99914	2,7	.79765	690,7	86 24 07.33
.509	.99809	6,2	.06176	99,8	.99917	2,7	.79069	701,9	86 27 33.59
1.510	0.99815	6,1	0.06076	99,8	9.99920	2,6	8.78361	713,5	86 30 59.86
.511	.99821	6,0	.05976	99,8	.99922	2,6	.77642	725,4	86 34 26.12
.512	.99827	5,9	.05876	99,8	.99925	2,6	.76910	737,8	86 37 52.39
.513	.99833	5,8	.05776	99,8	.99927	2,5	.76166	750,6	86 41 18.65
.514	.99839	5,7	.05677	99,8	.99930	2,5	.75409	763,8	86 44 44.92
1.515	0.99844	5,6	0.05577	99,8	9.99932	2,4	8.74638	777,5	86 48 11.18
.516	.99850	5,5	.05477	99,8	.99935	2,4	.73853	791,8	86 51 37.45
.517	.99855	5,4	.05377	99,9	.99937	2,3	.73054	806,5	86 55 03.71
.518	.99861	5,3	.05277	99,9	.99939	2,3	.72240	821,8	86 58 29.98
.519	.99866	5,2	.05177	99,9	.99942	2,3	.71410	837,7	87 01 56.24
1.520	0.99871	5,1	0.05077	99,9	9.99944	2,2	8.70565	854,2	87 05 22.51
.521	.99876	5,0	.04978	99,9	.99946	2,2	.69702	871,4	87 08 48.77
.522	.99881	4,9	.04878	99,9	.99948	2,1	.68821	889,3	87 12 15.04
.523	.99886	4,8	.04778	99,9	.99950	2,1	.67923	907,9	87 15 41.30
.524	.99891	4,7	.04678	99,9	.99952	2,0	.67005	927,4	87 19 07.56
1.525	0.99895	4,6	0.04578	99,9	9.99954	2,0	8.66068	947,7	87 22 33.83
.526	.99900	4,5	.04478	99,9	.99956	1,9	.65110	968,8	87 26 00.09
.527	.99904	4,4	.04378	99,9	.99958	1,9	.64130	991,0	87 29 26.36
.528	.99908	4,3	.04278	99,9	.99960	1,9	.63127	1014,2	87 32 52.62
.529	.99913	4,2	.04178	99,9	.99962	1,8	.62101	1038,5	87 36 18.89
1.530	0.99917	4,1	0.04079	99,9	9.99964	1,8	8.61050	1064,0	87 39 45.15
.531	.99921	4,0	.03979	99,9	.99966	1,7	.59973	1090,7	87 43 11.42
.532	.99925	3,9	.03879	99,9	.99967	1,7	.58868	1118,9	87 46 37.68
.533	.99929	3,8	.03779	99,9	.99969	1,6	.57735	1148,5	87 50 03.95
.534	.99932	3,7	.03679	99,9	.99971	1,6	.56571	1179,7	87 53 30.21
1.535	0.99936	3,6	0.03579	99,9	9.99972	1,6	8.55375	1212,7	87 56 56.48
.536	.99939	3,5	.03479	99,9	.99974	1,5	.54145	1247,6	88 00 22.74
.537	.99943	3,4	.03379	99,9	.99975	1,5	.52879	1284,5	88 03 49.01
.538	.99946	3,3	.03279	99,9	.99977	1,4	.51575	1323,7	88 07 15.27
.539	.99949	3,2	.03179	99,9	.99978	1,4	.50230	1365,4	88 10 41.54
1.540	0.99953	3,1	0.03079	100,0	9.99979	1,3	8.48843	1409,8	88 14 07.80
.541	.99956	3,0	.02979	100,0	.99981	1,3	.47410	1457,1	88 17 34.07
.542	.99959	2,9	.02879	100,0	.99982	1,3	.45928	1507,7	88 21 00.33
.543	.99961	2,8	.02779	100,0	.99983	1,2	.44393	1562,0	88 24 26.60
.544	.99964	2,7	.02679	100,0	.99984	1,2	.42802	1620,3	88 27 52.86
1.545	0.99967	2,6	0.02579	100,0	9.99986	1,1	8.41151	1683,2	88 31 19.13
.546	.99969	2,5	.02479	100,0	.99987	1,1	.39434	1751,1	88 34 45.39
.547	.99972	2,4	.02379	100,0	.99988	1,0	.37647	1824,7	88 38 11.66
.548	.99974	2,3	.02279	100,0	.99989	1,0	.35783	1904,8	88 41 37.92
.549	.99976	2,2	.02179	100,0	.99990	0,9	.33835	1992,2	88 45 04.18
1.550	0.99978	2,1	0.02079	100,0	9.99991	0,9	8.31796	2088,0	88 48 30.45
u	−i sinh iu	$\omega F_0'$	cosh iu	$\omega F_0'$	$\log\frac{\sinh iu}{i}$	$\omega F_0'$	log cosh iu	$\omega F_0'$	u

u	sin u	ω F_0'	cos u	ω F_0'	log sin u	ω F_0'	log cos u	ω F_0'	u
1.550	0.99978	2,1	+0.02079	100,0	9.99991	0,9	8.31796	2088,0	88° 48′ 30.″45
.551	.99980	2,0	.01980		.99991	0,9	.29656	2193,5	88 51 56.71
.552	.99982	1,9	.01880		.99992	0,8	.27405	2310,3	88 55 22.98
.553	.99984	1,8	.01780		.99993	0,8	.25031	2440,1	88 58 49.24
.554	.99986	1,7	.01680		.99994	0,7	.22519	2585,4	89 02 15.51
1.555	0.99988	1,6	+0.01580	100,0	9.99995	0,7	8.19854	2749,1	89 05 41.77
.556	.99989	1,5	.01480		.99995	0,6	.17014	2934,9	89 09 08.04
.557	.99990	1,4	.01380		.99996	0,6	.13975	3147,7	89 12 34.30
.558	.99992	1,3	.01280		.99996	0,6	.10707	3393,7	89 16 00.57
.559	.99993	1,2	.01180		.99997	0,5	.07174	3681,4	89 19 26.83
1.560	0.99994	1,1	+0.01080	100,0	9.99997	0,5	8.03327	4022,5	89 22 53.10
.561	.99995	1,0	.00980		.99998	0,4	7.99106	4433,1	89 26 19.36
.562	.99996	0,9	.00880		.99998	0,4	.94430	4937,1	89 29 45.63
.563	.99997	0,8	.00780		.99999	0,3	.89189	5570,4	89 33 11.89
.564	.99998	0,7	.00680		.99999	0,3	.83227	6390,0	89 36 38.16
1.565	0.99998	0,6	+0.00580	100,0	9.99999	0,3	7.76315	7492,5	89 40 04.42
.566	.99999	0,5	.00480		0.00000	0,2	.68091	9054,7	89 43 30.69
.567	.99999	0,4	.00380		.00000	0,2	.57936	11439,8	89 46 56.95
.568	1.00000	0,3	.00280		.00000	0,1	.44659	15530,9	89 50 23.22
.569	1.00000	0,2	.00180		.00000	0,1	.25438	24176,8	89 53 49.48
1.570	1.00000	0,1	+0.00080	100,0	0.00000	0,0	6.90109	54537,4	89 57 15.75
.571	.00000	0,0	−.00020		.00000	0,0	6.30894n	213228,5	90 00 42.01
.572	.00000	0,1	.00120		.00000	0,1	7.08051	36080,7	90 04 08.28
.573	.00000	0,2	.00220		.00000	0,1	.34315	19707,7	90 07 34.54
.574	0.99999	0,3	.00320		.00000	0,1	.50565	13556,1	90 11 00.81
1.575	0.99999	0,4	−0.00420	100,0	0.00000	0,2	7.62363n	10331,2	90 14 27.07
.576	.99999	0,5	.00520		9.99999	0,2	.71631	8345,8	90 17 53.33
.577	.99998	0,6	.00620		.99999	0,3	.79265	7000,5	90 21 19.60
.578	.99997	0,7	.00720		.99999	0,3	.85755	6028,6	90 24 45.86
.579	.99997	0,8	.00820		.99999	0,4	.91400	5293,8	90 28 12.13
1.580	0.99996	0,9	−0.00920	100,0	9.99998	0,4	7.96396n	4718,6	90 31 38.39
.581	.99995	1,0	.01020		.99998	0,4	8.00875	4256,1	90 35 04.66
.582	.99994	1,1	.01120		.99997	0,5	.04935	3876,2	90 38 30.92
.583	.99993	1,2	.01220		.99997	0,5	.08648	3558,5	90 41 57.19
.584	.99991	1,3	.01320		.99996	0,6	.12068	3289,0	90 45 23.45
1.585	0.99990	1,4	−0.01420	100,0	9.99996	0,6	8.15239n	3057,4	90 48 49.72
.586	.99988	1,5	.01520		.99995	0,7	.18193	2856,3	90 52 15.98
.587	.99987	1,6	.01620		.99994	0,7	.20959	2680,0	90 55 42.25
.588	.99985	1,7	.01720		.99994	0,7	.23560	2524,2	90 59 08.51
.589	.99983	1,8	.01820		.99993	0,8	.26014	2385,5	91 02 34.78
1.590	0.99982	1,9	−0.01920	100,0	9.99992	0,8	8.28336n	2261,2	91 06 01.04
.591	.99980	2,0	.02020		.99991	0,9	.30540	2149,3	91 09 27.31
.592	.99978	2,1	.02120		.99990	0,9	.32638	2047,9	91 12 53.57
.593	.99975	2,2	.02220		.99989	1,0	.34639	1955,6	91 16 19.84
.594	.99973	2,3	.02320		.99988	1,0	.36552	1871,3	91 19 46.10
1.595	0.99971	2,4	−0.02420	100,0	9.99987	1,1	8.38384n	1794,0	91 23 12.37
.596	.99968	2,5	.02520		.99986	1,1	.40142	1722,8	91 26 38.63
.597	.99966	2,6	.02620		.99985	1,1	.41831	1657,0	91 30 04.90
.598	.99963	2,7	.02720		.99984	1,2	.43457	1596,1	91 33 31.16
.599	.99960	2,8	.02820		.99983	1,2	.45025	1539,4	91 36 57.43
1.600	0.99957	2,9	−0.02920	100,0	9.99981	1,3	8.46538n	1486,7	91 40 23.69
u	−i sinh iu	ω F_0'	cosh iu	ω F_0'	log $\frac{\sinh iu}{i}$	ω F_0'	log cosh iu	ω F_0'	u

TABLE IV

THE ASCENDING AND DESCENDING EXPONENTIAL AND $\text{Log}_{10}(e^u)$

NOTE.—In Table IV, for u greater than 2.302, the tabulated values of the ascending exponential may sometimes be erroneous to one unit in the last place.

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.000	0.000 0000	1.000 000	1.000 0000	0.050	0.021 7147	1.051 271	0.951 2294
.001	.000 4343	.001 001	0.999 0005	.051	.022 1490	.052 323	.950 2787
.002	.000 8686	.002 002	.998 0020	.052	.022 5833	.053 376	.949 3289
.003	.001 3029	.003 005	.997 0045	.053	.023 0176	.054 430	.948 3800
.004	.001 7372	.004 008	.996 0080	.054	.023 4519	.055 485	.947 4321
0.005	0.002 1715	1.005 013	0.995 0125	0.055	0.023 8862	1.056 541	0.946 4851
.006	.002 6058	.006 018	.994 0180	.056	.024 3205	.057 598	.945 5391
.007	.003 0401	.007 025	.993 0244	.057	.024 7548	.058 656	.944 5941
.008	.003 4744	.008 032	.992 0319	.058	.025 1891	.059 715	.943 6499
.009	.003 9087	.009 041	.991 0404	.059	.025 6234	.060 775	.942 7068
0.010	0.004 3429	1.010 050	0.990 0498	0.060	0.026 0577	1.061 837	0.941 7645
.011	.004 7772	.011 061	.989 0603	.061	.026 4920	.062 899	.940 8232
.012	.005 2115	.012 072	.988 0717	.062	.026 9263	.063 962	.939 8829
.013	.005 6458	.013 085	.987 0841	.063	.027 3606	.065 027	.938 9435
.014	.006 0801	.014 098	.986 0975	.064	.027 7948	.066 092	.938 0050
0.015	0.006 5144	1.015 113	0.985 1119	0.065	0.028 2291	1.067 159	0.937 0675
.016	.006 9487	.016 129	.984 1273	.066	.028 6634	.068 227	.936 1309
.017	.007 3830	.017 145	.983 1437	.067	.029 0977	.069 295	.935 1952
.018	.007 8173	.018 163	.982 1610	.068	.029 5320	.070 365	.934 2605
.019	.008 2516	.019 182	.981 1794	.069	.029 9663	.071 436	.933 3267
0.020	0.008 6859	1.020 201	0.980 1987	0.070	0.030 4006	1.072 508	0.932 3938
.021	.009 1202	.021 222	.979 2190	.071	.030 8349	.073 581	.931 4619
.022	.009 5545	.022 244	.978 2402	.072	.031 2692	.074 655	.930 5309
.023	.009 9888	.023 267	.977 2625	.073	.031 7035	.075 731	.929 6008
.024	.010 4231	.024 290	.976 2857	.074	.032 1378	.076 807	.928 6717
0.025	0.010 8574	1.025 315	0.975 3099	0.075	0.032 5721	1.077 884	0.927 7435
.026	.011 2917	.026 341	.974 3351	.076	.033 0064	.078 963	.926 8162
.027	.011 7260	.027 368	.973 3612	.077	.033 4407	.080 042	.925 8899
.028	.012 1602	.028 396	.972 3884	.078	.033 8750	.081 123	.924 9644
.029	.012 5945	.029 425	.971 4165	.079	.034 3093	.082 204	.924 0399
0.030	0.013 0288	1.030 455	0.970 4455	0.080	0.034 7436	1.083 287	0.923 1163
.031	.013 4631	.031 486	.969 4756	.081	.035 1779	.084 371	.922 1937
.032	.013 8974	.032 518	.968 5066	.082	.035 6121	.085 456	.921 2720
.033	.014 3317	.033 551	.967 5386	.083	.036 0464	.086 542	.920 3511
.034	.014 7660	.034 585	.966 5715	.084	.036 4807	.087 629	.919 4313
0.035	0.015 2003	1.035 620	0.965 6054	0.085	0.036 9150	1.088 717	0.918 5123
.036	.015 6346	.036 656	.964 6403	.086	.037 3493	.089 806	.917 5942
.037	.016 0689	.037 693	.963 6761	.087	.037 7836	.090 897	.916 6771
.038	.016 5032	.038 731	.962 7129	.088	.038 2179	.091 988	.915 7609
.039	.016 9375	.039 770	.961 7507	.089	.038 6522	.093 081	.914 8456
0.040	0.017 3718	1.040 811	0.960 7894	0.090	0.039 0865	1.094 174	0.913 9312
.041	.017 8061	.041 852	.959 8291	.091	.039 5208	.095 269	.913 0177
.042	.018 2404	.042 894	.958 8698	.092	.039 9551	.096 365	.912 1051
.043	.018 6747	.043 938	.957 9114	.093	.040 3894	.097 462	.911 1935
.044	.019 1090	.044 982	.956 9540	.094	.040 8237	.098 560	.910 2828
0.045	0.019 5433	1.046 028	0.955 9975	0.095	0.041 2580	1.099 659	0.909 3729
.046	.019 9775	.047 074	.955 0420	.096	.041 6923	.100 759	.908 4640
.047	.020 4118	.048 122	.954 0874	.097	.042 1266	.101 860	.907 5560
.048	.020 8461	.049 171	.953 1338	.098	.042 5609	.102 963	.906 6489
.049	.021 2804	.050 220	.952 1811	.099	.042 9952	.104 066	.905 7427
0.050	0.021 7147	1.051 271	0.951 2294	0.100	0.043 4294	1.105 171	0.904 8374
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.100	0.043 4294	1.105 171	0.904 8374	0.150	0.065 1442	1.161 834	0.860 7080
.101	.043 8637	.106 277	.903 9330	.151	.065 5785	.162 997	.859 8477
.102	.044 2980	.107 383	.903 0296	.152	.066 0128	.164 160	.858 9883
.103	.044 7323	.108 491	.902 1270	.153	.066 4471	.165 325	.858 1297
.104	.045 1666	.109 600	.901 2253	.154	.066 8814	.166 491	.857 2720
0.105	0.045 6009	1.110 711	0.900 3245	0.155	0.067 3156	1.167 658	0.856 4152
.106	.046 0352	.111 822	.899 4246	.156	.067 7499	.168 826	.855 5592
.107	.046 4695	.112 934	.898 5257	.157	.068 1842	.169 996	.854 7041
.108	.046 9038	.114 048	.897 6276	.158	.068 6185	.171 166	.853 8498
.109	.047 3381	.115 162	.896 7304	.159	.069 0528	.172 338	.852 9964
0.110	0.047 7724	1.116 278	0.895 8341	0.160	0.069 4871	1.173 511	0.852 1438
.111	.048 2067	.117 395	.894 9387	.161	.069 9214	.174 685	.851 2921
.112	.048 6410	.118 513	.894 0443	.162	.070 3557	.175 860	.850 4412
.113	.049 0753	.119 632	.893 1507	.163	.070 7900	.177 037	.849 5912
.114	.049 5096	.120 752	.892 2580	.164	.071 2243	.178 214	.848 7420
0.115	0.049 9439	1.121 873	0.891 3661	0.165	0.071 6586	1.179 393	0.847 8937
.116	.050 3782	.122 996	.890 4752	.166	.072 0929	.180 573	.847 0462
.117	.050 8125	.124 119	.889 5852	.167	.072 5272	.181 754	.846 1996
.118	.051 2467	.125 244	.888 6961	.168	.072 9615	.182 937	.845 3538
.119	.051 6810	.126 370	.887 8078	.169	.073 3958	.184 120	.844 5089
0.120	0.052 1153	1.127 497	0.886 9204	0.170	0.073 8301	1.185 305	0.843 6648
.121	.052 5496	.128 625	.886 0340	.171	.074 2644	.186 491	.842 8216
.122	.052 9839	.129 754	.885 1484	.172	.074 6987	.187 678	.841 9792
.123	.053 4182	.130 884	.884 2637	.173	.075 1329	.188 866	.841 1376
.124	.053 8525	.132 016	.883 3798	.174	.075 5672	.190 056	.840 2969
0.125	0.054 2868	1.133 148	0.882 4969	0.175	0.076 0015	1.191 246	0.839 4570
.126	.054 7211	.134 282	.881 6148	.176	.076 4358	.192 438	.838 6180
.127	.055 1554	.135 417	.880 7337	.177	.076 8701	.193 631	.837 7798
.128	.055 5897	.136 553	.879 8534	.178	.077 3044	.194 825	.836 9424
.129	.056 0240	.137 690	.878 9740	.179	.077 7387	.196 021	.836 1059
0.130	0.056 4583	1.138 828	0.878 0954	0.180	0.078 1730	1.197 217	0.835 2702
.131	.056 8926	.139 968	.877 2178	.181	.078 6073	.198 415	.834 4354
.132	.057 3269	.141 108	.876 3410	.182	.079 0416	.199 614	.833 6013
.133	.057 7612	.142 250	.875 4651	.183	.079 4759	.200 814	.832 7682
.134	.058 1955	.143 393	.874 5901	.184	.079 9102	.202 016	.831 9358
0.135	0.058 6298	1.144 537	0.873 7159	0.185	0.080 3445	1.203 218	0.831 1043
.136	.059 0640	.145 682	.872 8426	.186	.080 7788	.204 422	.830 2736
.137	.059 4983	.146 828	.871 9702	.187	.081 2131	.205 627	.829 4437
.138	.059 9326	.147 976	.871 0987	.188	.081 6474	.206 834	.828 6147
.139	.060 3669	.149 124	.870 2280	.189	.082 0817	.208 041	.827 7865
0.140	0.060 8012	1.150 274	0.869 3582	0.190	0.082 5160	1.209 250	0.826 9591
.141	.061 2355	.151 425	.868 4893	.191	.082 9502	.210 459	.826 1326
.142	.061 6698	.152 577	.867 6213	.192	.083 3845	.211 671	.825 3069
.143	.062 1041	.153 730	.866 7541	.193	.083 8188	.212 883	.824 4820
.144	.062 5384	.154 884	.865 8877	.194	.084 2531	.214 096	.823 6579
0.145	0.062 9727	1.156 040	0.865 0223	0.195	0.084 6874	1.215 311	0.822 8347
.146	.063 4070	.157 196	.864 1577	.196	.085 1217	.216 527	.822 0122
.147	.063 8413	.158 354	.863 2940	.197	.085 5560	.217 744	.821 1906
.148	.064 2756	.159 513	.862 4311	.198	.085 9903	.218 962	.820 3699
.149	.064 7099	.160 673	.861 5691	.199	.086 4246	.220 182	.819 5499
0.150	0.065 1442	1.161 834	0.860 7080	0.200	0.086 8589	1.221 403	0.818 7308
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.200	0.086 8589	1.221 403	0.818 7308	0.250	0.108 5736	1.284 025	0.778 8008
.201	.087 2932	.222 625	.817 9124	.251	.109 0079	.285 310	.778 0224
.202	.087 7275	.223 848	.817 0949	.252	.109 4422	.286 596	.777 2447
.203	.088 1618	.225 072	.816 2782	.253	.109 8765	.287 883	.776 4679
.204	.088 5961	.226 298	.815 4624	.254	.110 3108	.289 172	.775 6918
0.205	0.089 0304	1.227 525	0.814 6473	0.255	0.110 7451	1.290 462	0.774 9165
.206	.089 4647	.228 753	.813 8331	.256	.111 1794	.291 753	.774 1420
.207	.089 8990	.229 983	.813 0196	.257	.111 6137	.293 045	.773 3682
.208	.090 3333	.231 213	.812 2070	.258	.112 0480	.294 339	.772 5952
.209	.090 7675	.232 445	.811 3952	.259	.112 4823	.295 634	.771 8230
0.210	0.091 2018	1.233 678	0.810 5842	0.260	0.112 9166	1.296 930	0.771 0516
.211	.091 6361	.234 912	.809 7741	.261	.113 3509	.298 228	.770 2809
.212	.092 0704	.236 148	.808 9647	.262	.113 7852	.299 527	.769 5110
.213	.092 5047	.237 385	.808 1561	.263	.114 2194	.300 827	.768 7419
.214	.092 9390	.238 623	.807 3484	.264	.114 6537	.302 128	.767 9735
0.215	0.093 3733	1.239 862	0.806 5414	0.265	0.115 0880	1.303 431	0.767 2059
.216	.093 8076	.241 102	.805 7353	.266	.115 5223	.304 735	.766 4391
.217	.094 2419	.242 344	.804 9300	.267	.115 9566	.306 040	.765 6731
.218	.094 6762	.243 587	.804 1254	.268	.116 3909	.307 347	.764 9078
.219	.095 1105	.244 831	.803 3217	.269	.116 8252	.308 655	.764 1433
0.220	0.095 5448	1.246 077	0.802 5188	0.270	0.117 2595	1.309 964	0.763 3795
.221	.095 9791	.247 323	.801 7167	.271	.117 6938	.311 275	.762 6165
.222	.096 4134	.248 571	.800 9154	.272	.118 1281	.312 587	.761 8543
.223	.096 8477	.249 821	.800 1148	.273	.118 5624	.313 900	.761 0928
.224	.097 2820	.251 071	.799 3151	.274	.118 9967	.315 215	.760 3321
0.225	0.097 7163	1.252 323	0.798 5162	0.275	0.119 4310	1.316 531	0.759 5721
.226	.098 1506	.253 576	.797 7181	.276	.119 8653	.317 848	.758 8129
.227	.098 5848	.254 830	.796 9208	.277	.120 2996	.319 166	.758 0545
.228	.099 0191	.256 085	.796 1243	.278	.120 7339	.320 486	.757 2968
.229	.099 4534	.257 342	.795 3285	.279	.121 1682	.321 807	.756 5399
0.230	0.099 8877	1.258 600	0.794 5336	0.280	0.121 6025	1.323 130	0.755 7837
.231	.100 3220	.259 859	.793 7395	.281	.122 0367	.324 454	.755 0283
.232	.100 7563	.261 120	.792 9461	.282	.122 4710	.325 779	.754 2737
.233	.101 1906	.262 381	.792 1536	.283	.122 9053	.327 105	.753 5198
.234	.101 6249	.263 644	.791 3618	.284	.123 3396	.328 433	.752 7666
0.235	0.102 0592	1.264 909	0.790 5708	0.285	0.123 7739	1.329 762	0.752 0143
.236	.102 4935	.266 174	.789 7807	.286	.124 2082	.331 092	.751 2626
.237	.102 9278	.267 441	.788 9913	.287	.124 6425	.332 424	.750 5117
.238	.103 3621	.268 709	.788 2027	.288	.125 0768	.333 757	.749 7616
.239	.103 7964	.269 979	.787 4149	.289	.125 5111	.335 092	.749 0122
0.240	0.104 2307	1.271 249	0.786 6279	0.290	0.125 9454	1.336 427	0.748 2636
.241	.104 6650	.272 521	.785 8416	.291	.126 3797	.337 765	.747 5157
.242	.105 0993	.273 794	.785 0562	.292	.126 8140	.339 103	.746 7685
.243	.105 5336	.275 069	.784 2715	.293	.127 2483	.340 443	.746 0221
.244	.105 9679	.276 344	.783 4876	.294	.127 6826	.341 784	.745 2765
0.245	0.106 4021	1.277 621	0.782 7045	0.295	0.128 1169	1.343 126	0.744 5316
.246	.106 8364	.278 900	.781 9222	.296	.128 5512	.344 470	.743 7874
.247	.107 2707	.280 179	.781 1407	.297	.128 9855	.345 815	.743 0440
.248	.107 7050	.281 460	.780 3599	.298	.129 4198	.347 162	.742 3013
.249	.108 1393	.282 742	.779 5800	.299	.129 8541	.348 510	.741 5594
0.250	0.108 5736	1.284 025	0.778 8008	0.300	0.130 2883	1.349 859	0.740 8182
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.300	0.130 2883	1.349 859	0.740 8182	0.350	0.152 0031	1.419 068	0.704 6881
.301	.130 7226	.351 209	.740 0778	.351	.152 4374	.420 487	.703 9838
.302	.131 1569	.352 561	.739 3381	.352	.152 8717	.421 909	.703 2801
.303	.131 5912	.353 914	.738 5991	.353	.153 3060	.423 331	.702 5772
.304	.132 0255	.355 269	.737 8609	.354	.153 7402	.424 755	.701 8750
0.305	0.132 4598	1.356 625	0.737 1234	0.355	0.154 1745	1.426 181	0.701 1734
.306	.132 8941	.357 982	.736 3866	.356	.154 6088	.427 608	.700 4726
.307	.133 3284	.359 341	.735 6506	.357	.155 0431	.429 036	.699 7725
.308	.133 7627	.360 701	.734 9153	.358	.155 4774	.430 466	.699 0731
.309	.134 1970	.362 062	.734 1808	.359	.155 9117	.431 897	.698 3744
0.310	0.134 6313	1.363 425	0.733 4470	0.360	0.156 3460	1.433 329	0.697 6763
.311	.135 0656	.364 789	.732 7139	.361	.156 7803	.434 763	.696 9790
.312	.135 4999	.366 155	.731 9815	.362	.157 2146	.436 199	.696 2824
.313	.135 9342	.367 522	.731 2499	.363	.157 6489	.437 636	.695 5864
.314	.136 3685	.368 890	.730 5190	.364	.158 0832	.439 074	.694 8912
0.315	0.136 8028	1.370 259	0.729 7889	0.365	0.158 5175	1.440 514	0.694 1967
.316	.137 2371	.371 630	.729 0595	.366	.158 9518	.441 955	.693 5028
.317	.137 6714	.373 003	.728 3308	.367	.159 3861	.443 398	.692 8096
.318	.138 1056	.374 376	.727 6028	.368	.159 8204	.444 842	.692 1172
.319	.138 5399	.375 751	.726 8755	.369	.160 2547	.446 288	.691 4254
0.320	0.138 9742	1.377 128	0.726 1490	0.370	0.160 6890	1.447 735	0.690 7343
.321	.139 4085	.378 506	.725 4233	.371	.161 1233	.449 183	.690 0439
.322	.139 8428	.379 885	.724 6982	.372	.161 5575	.450 633	.689 3542
.323	.140 2771	.381 265	.723 9739	.373	.161 9918	.452 084	.688 6652
.324	.140 7114	.382 647	.723 2502	.374	.162 4261	.453 537	.687 9769
0.325	0.141 1457	1.384 031	0.722 5274	0.375	0.162 8604	1.454 991	0.687 2893
.326	.141 5800	.385 415	.721 8052	.376	.163 2947	.456 447	.686 6023
.327	.142 0143	.386 801	.721 0837	.377	.163 7290	.457 904	.685 9161
.328	.142 4486	.388 189	.720 3630	.378	.164 1633	.459 363	.685 2305
.329	.142 8829	.389 578	.719 6430	.379	.164 5976	.460 823	.684 5456
0.330	0.143 3172	1.390 968	0.718 9237	0.380	0.165 0319	1.462 285	0.683 8614
.331	.143 7515	.392 360	.718 2052	.381	.165 4662	.463 748	.683 1779
.332	.144 1858	.393 753	.717 4873	.382	.165 9005	.465 212	.682 4951
.333	.144 6201	.395 147	.716 7702	.383	.166 3348	.466 678	.681 8129
.334	.145 0544	.396 543	.716 0538	.384	.166 7691	.468 145	.681 1314
0.335	0.145 4887	1.397 940	0.715 3381	0.385	0.167 2034	1.469 614	0.680 4506
.336	.145 9229	.399 339	.714 6231	.386	.167 6377	.471 085	.679 7705
.337	.146 3572	.400 739	.713 9088	.387	.168 0720	.472 556	.679 0911
.338	.146 7915	.402 141	.713 1953	.388	.168 5063	.474 030	.678 4123
.339	.147 2258	.403 543	.712 4824	.389	.168 9406	.475 505	.677 7343
0.340	0.147 6601	1.404 948	0.711 7703	0.390	0.169 3748	1.476 981	0.677 0569
.341	.148 0944	.406 353	.711 0589	.391	.169 8091	.478 459	.676 3802
.342	.148 5287	.407 760	.710 3482	.392	.170 2434	.479 938	.675 7041
.343	.148 9630	.409 169	.709 6382	.393	.170 6777	.481 418	.675 0287
.344	.149 3973	.410 579	.708 9289	.394	.171 1120	.482 901	.674 3541
0.345	0.149 8316	1.411 990	0.708 2204	0.395	0.171 5463	1.484 384	0.673 6800
.346	.150 2659	.413 403	.707 5125	.396	.171 9806	.485 869	.673 0067
.347	.150 7002	.414 817	.706 8053	.397	.172 4149	.487 356	.672 3340
.348	.151 1345	.416 232	.706 0989	.398	.172 8492	.488 844	.671 6620
.349	.151 5688	.417 649	.705 3931	.399	.173 2835	.490 334	.670 9907
0.350	0.152 0031	1.419 068	0.704 6881	0.400	0.173 7178	1.491 825	0.670 3200
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.400	0.173 7178	1.491 825	0.670 3200	0.450	0.195 4325	1.568 312	0.637 6282
.401	.174 1521	.493 317	.669 6501	.451	.195 8668	.569 881	.636 9908
.402	.174 5864	.494 811	.668 9807	.452	.196 3011	.571 452	.636 3542
.403	.175 0207	.496 307	.668 3121	.453	.196 7354	.573 024	.635 7181
.404	.175 4550	.497 804	.667 6441	.454	.197 1697	.574 598	.635 0827
0.405	0.175 8893	1.499 303	0.666 9768	0.455	0.197 6040	1.576 173	0.634 4480
.406	.176 3236	.500 803	.666 3102	.456	.198 0383	.577 750	.633 8138
.407	.176 7579	.502 304	.665 6442	.457	.198 4726	.579 329	.633 1803
.408	.177 1921	.503 807	.664 9789	.458	.198 9069	.580 909	.632 5475
.409	.177 6264	.505 312	.664 3142	.459	.199 3412	.582 491	.631 9152
0.410	0.178 0607	1.506 818	0.663 6503	0.460	0.199 7755	1.584 074	0.631 2836
.411	.178 4950	.508 325	.662 9869	.461	.200 2098	.585 659	.630 6527
.412	.178 9293	.509 834	.662 3243	.462	.200 6441	.587 245	.630 0223
.413	.179 3636	.511 345	.661 6623	.463	.201 0783	.588 833	.629 3926
.414	.179 7979	.512 857	.661 0010	.464	.201 5126	.590 423	.628 7636
0.415	0.180 2322	1.514 371	0.660 3403	0.465	0.201 9469	1.592 014	0.628 1351
.416	.180 6665	.515 886	.659 6803	.466	.202 3812	.593 607	.627 5073
.417	.181 1008	.517 403	.659 0209	.467	.202 8155	.595 201	.626 8801
.418	.181 5351	.518 921	.658 3622	.468	.203 2498	.596 797	.626 2535
.419	.181 9694	.520 440	.657 7042	.469	.203 6841	.598 395	.625 6276
0.420	0.182 4037	1.521 962	0.657 0468	0.470	0.204 1184	1.599 994	0.625 0023
.421	.182 8380	.523 484	.656 3901	.471	.204 5527	.601 595	.624 3776
.422	.183 2723	.525 009	.655 7340	.472	.204 9870	.603 197	.623 7535
.423	.183 7066	.526 534	.655 0786	.473	.205 4213	.604 801	.623 1301
.424	.184 1409	.528 062	.654 4239	.474	.205 8556	.606 407	.622 5073
0.425	0.184 5752	1.529 590	0.653 7698	0.475	0.206 2899	1.608 014	0.621 8851
.426	.185 0094	.531 121	.653 1163	.476	.206 7242	.609 623	.621 2635
.427	.185 4437	.532 653	.652 4636	.477	.207 1585	.611 233	.620 6425
.428	.185 8780	.534 187	.651 8114	.478	.207 5928	.612 845	.620 0222
.429	.186 3123	.535 721	.651 1599	.479	.208 0271	.614 459	.619 4025
0.430	0.186 7466	1.537 258	0.650 5091	0.480	0.208 4614	1.616 074	0.618 7834
.431	.187 1809	.538 796	.649 8589	.481	.208 8956	.617 691	.618 1649
.432	.187 6152	.540 335	.649 2094	.482	.209 3299	.619 310	.617 5471
.433	.188 0495	.541 876	.648 5605	.483	.209 7642	.620 930	.616 9298
.434	.188 4838	.543 419	.647 9123	.484	.210 1985	.622 552	.616 3132
0.435	0.188 9181	1.544 963	0.647 2647	0.485	0.210 6328	1.624 175	0.615 6972
.436	.189 3524	.546 509	.646 6177	.486	.211 0671	.625 800	.615 0818
.437	.189 7867	.548 056	.645 9714	.487	.211 5014	.627 427	.614 4670
.438	.190 2210	.549 605	.645 3258	.488	.211 9357	.629 055	.613 8529
.439	.190 6553	.551 155	.644 6808	.489	.212 3700	.630 685	.613 2393
0.440	0.191 0896	1.552 707	0.644 0364	0.490	0.212 8043	1.632 316	0.612 6264
.441	.191 5239	.554 261	.643 3927	.491	.213 2386	.633 949	.612 0141
.442	.191 9582	.555 816	.642 7496	.492	.213 6729	.635 584	.611 4024
.443	.192 3925	.557 372	.642 1072	.493	.214 1072	.637 221	.610 7913
.444	.192 8267	.558 930	.641 4654	.494	.214 5415	.638 859	.610 1808
0.445	0.193 2610	1.560 490	0.640 8243	0.495	0.214 9758	1.640 498	0.609 5709
.446	.193 6953	.562 051	.640 1838	.496	.215 4101	.642 140	.608 9616
.447	.194 1296	.563 614	.639 5439	.497	.215 8444	.643 783	.608 3530
.448	.194 5639	.565 179	.638 9047	.498	.216 2787	.645 427	.607 7449
.449	.194 9982	.566 745	.638 2661	.499	.216 7129	.647 073	.607 1375
0.450	0.195 4325	1.568 312	0.637 6282	0.500	0.217 1472	1.648 721	0.606 5307
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.500	0.217 1472	1.648 721	0.606 5307	0.550	0.238 8620	1.733 253	0.576 9498
.501	.217 5815	.650 371	.605 9244	.551	.239 2963	.734 987	.576 3731
.502	.218 0158	.652 022	.605 3188	.552	.239 7306	.736 723	.575 7971
.503	.218 4501	.653 675	.604 7138	.553	.240 1648	.738 461	.575 2216
.504	.218 8844	.655 329	.604 1094	.554	.240 5991	.740 200	.574 6466
0.505	0.219 3187	1.656 986	0.603 5056	0.555	0.241 0334	1.741 941	0.574 0723
.506	.219 7530	.658 643	.602 9024	.556	.241 4677	.743 684	.573 4985
.507	.220 1873	.660 303	.602 2998	.557	.241 9020	.745 428	.572 9253
.508	.220 6216	.661 964	.601 6978	.558	.242 3363	.747 175	.572 3526
.509	.221 0559	.663 627	.601 0964	.559	.242 7706	.748 923	.571 7806
0.510	0.221 4902	1.665 291	0.600 4956	0.560	0.243 2049	1.750 673	0.571 2091
.511	.221 9245	.666 957	.599 8954	.561	.243 6392	.752 424	.570 6381
.512	.222 3588	.668 625	.599 2958	.562	.244 0735	.754 177	.570 0678
.513	.222 7931	.670 295	.598 6968	.563	.244 5078	.755 932	.569 4980
.514	.223 2274	.671 966	.598 0984	.564	.244 9421	.757 689	.568 9288
0.515	0.223 6617	1.673 639	0.597 5006	0.565	0.245 3764	1.759 448	0.568 3601
.516	.224 0960	.675 313	.596 9034	.566	.245 8107	.761 208	.567 7921
.517	.224 5302	.676 989	.596 3068	.567	.246 2450	.762 970	.567 2246
.518	.224 9645	.678 667	.595 7108	.568	.246 6793	.764 734	.566 6576
.519	.225 3988	.680 346	.595 1154	.569	.247 1136	.766 500	.566 0912
0.520	0.225 8331	1.682 028	0.594 5205	0.570	0.247 5479	1.768 267	0.565 5254
.521	.226 2674	.683 711	.593 9263	.571	.247 9821	.770 036	.564 9602
.522	.226 7017	.685 395	.593 3327	.572	.248 4164	.771 807	.564 3955
.523	.227 1360	.687 081	.592 7397	.573	.248 8507	.773 580	.563 8314
.524	.227 5703	.688 769	.592 1472	.574	.249 2850	.775 354	.563 2679
0.525	0.228 0046	1.690 459	0.591 5554	0.575	0.249 7193	1.777 131	0.562 7049
.526	.228 4389	.692 150	.590 9641	.576	.250 1536	.778 909	.562 1424
.527	.228 8732	.693 843	.590 3734	.577	.250 5879	.780 688	.561 5806
.528	.229 3075	.695 538	.589 7834	.578	.251 0222	.782 470	.561 0193
.529	.229 7418	.697 234	.589 1939	.579	.251 4565	.784 253	.560 4585
0.530	0.230 1761	1.698 932	0.588 6050	0.580	0.251 8908	1.786 038	0.559 8984
.531	.230 6104	.700 632	.588 0167	.581	.252 3251	.787 825	.559 3387
.532	.231 0447	.702 334	.587 4289	.582	.252 7594	.789 614	.558 7797
.533	.231 4790	.704 037	.586 8418	.583	.253 1937	.791 405	.558 2212
.534	.231 9133	.705 742	.586 2553	.584	.253 6280	.793 197	.557 6632
0.535	0.232 3475	1.707 448	0.585 6693	0.585	0.254 0623	1.794 991	0.557 1059
.536	.232 7818	.709 157	.585 0839	.586	.254 4966	.796 787	.556 5490
.537	.233 2161	.710 867	.584 4991	.587	.254 9309	.798 585	.555 9928
.538	.233 6504	.712 578	.583 9149	.588	.255 3652	.800 384	.555 4370
.539	.234 0847	.714 292	.583 3313	.589	.255 7994	.802 185	.554 8819
0.540	0.234 5190	1.716 007	0.582 7483	0.590	0.256 2337	1.803 988	0.554 3273
.541	.234 9533	.717 724	.582 1658	.591	.256 6680	.805 793	.553 7732
.542	.235 3876	.719 442	.581 5839	.592	.257 1023	.807 600	.553 2197
.543	.235 8219	.721 163	.581 0026	.593	.257 5366	.809 409	.552 6668
.544	.236 2562	.722 885	.580 4219	.594	.257 9709	.811 219	.552 1144
0.545	0.236 6905	1.724 608	0.579 8418	0.595	0.258 4052	1.813 031	0.551 5626
.546	.237 1248	.726 334	.579 2622	.596	.258 8395	.814 845	.551 0113
.547	.237 5591	.728 061	.578 6833	.597	.259 2738	.816 661	.550 4605
.548	.237 9934	.729 790	.578 1049	.598	.259 7081	.818 478	.549 9104
.549	.238 4277	.731 521	.577 5270	.599	.260 1424	.820 298	.549 3607
0.550	0.238 8620	1.733 253	0.576 9498	0.600	0.260 5767	1.822 119	0.548 8116
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.600	0.260 5767	1.822 119	0.548 8116	0.650	0.282 2914	1.915 541	0.522 0458
.601	.261 0110	.823 942	.548 2631	.651	.282 7257	.917 457	.521 5240
.602	.261 4453	.825 767	.547 7151	.652	.283 1600	.919 376	.521 0027
.603	.261 8796	.827 593	.547 1677	.653	.283 5943	.921 296	.520 4820
.604	.262 3139	.829 422	.546 6208	.654	.284 0286	.923 218	.519 9618
0.605	0.262 7482	1.831 252	0.546 0744	0.655	0.284 4629	1.925 143	0.519 4421
.606	.263 1825	.833 084	.545 5286	.656	.284 8972	.927 069	.518 9229
.607	.263 6168	.834 918	.544 9834	.657	.285 3315	.928 997	.518 4042
.608	.264 0510	.836 754	.544 4387	.658	.285 7658	.930 927	.517 8861
.609	.264 4853	.838 592	.543 8945	.659	.286 2001	.932 859	.517 3684
0.610	0.264 9196	1.840 431	0.543 3509	0.660	0.286 6344	1.934 792	0.516 8513
.611	.265 3539	.842 273	.542 8078	.661	.287 0687	.936 728	.516 3347
.612	.265 7882	.844 116	.542 2653	.662	.287 5029	.938 666	.515 8187
.613	.266 2225	.845 961	.541 7233	.663	.287 9372	.940 605	.515 3031
.614	.266 6568	.847 808	.541 1818	.664	.288 3715	.942 547	.514 7881
0.615	0.267 0911	1.849 657	0.540 6409	0.665	0.288 8058	1.944 491	0.514 2735
.616	.267 5254	.851 507	.540 1005	.666	.289 2401	.946 436	.513 7595
.617	.267 9597	.853 360	.539 5607	.667	.289 6744	.948 383	.513 2460
.618	.268 3940	.855 214	.539 0214	.668	.290 1087	.950 333	.512 7330
.619	.268 8283	.857 070	.538 4827	.669	.290 5430	.952 284	.512 2205
0.620	0.269 2626	1.858 928	0.537 9444	0.670	0.290 9773	1.954 237	0.511 7086
.621	.269 6969	.860 788	.537 4068	.671	.291 4116	.956 193	.511 1971
.622	.270 1312	.862 650	.536 8696	.672	.291 8459	.958 150	.510 6862
.623	.270 5655	.864 513	.536 3330	.673	.292 2802	.960 109	.510 1758
.624	.270 9998	.866 379	.535 7970	.674	.292 7145	.962 070	.509 6658
0.625	0.271 4341	1.868 246	0.535 2614	0.675	0.293 1488	1.964 033	0.509 1564
.626	.271 8683	.870 115	.534 7264	.676	.293 5831	.965 998	.508 6475
.627	.272 3026	.871 986	.534 1920	.677	.294 0174	.967 965	.508 1391
.628	.272 7369	.873 859	.533 6581	.678	.294 4517	.969 934	.507 6312
.629	.273 1712	.875 734	.533 1247	.679	.294 8860	.971 905	.507 1239
0.630	0.273 6055	1.877 611	0.532 5918	0.680	0.295 3202	1.973 878	0.506 6170
.631	.274 0398	.879 489	.532 0595	.681	.295 7545	.975 853	.506 1106
.632	.274 4741	.881 370	.531 5277	.682	.296 1888	.977 829	.505 6048
.633	.274 9084	.883 252	.530 9964	.683	.296 6231	.979 808	.505 0994
.634	.275 3427	.885 136	.530 4657	.684	.297 0574	.981 789	.504 5946
0.635	0.275 7770	1.887 022	0.529 9355	0.685	0.297 4917	1.983 772	0.504 0902
.636	.276 2113	.888 910	.529 4058	.686	.297 9260	.985 757	.503 5864
.637	.276 6456	.890 800	.528 8767	.687	.298 3603	.987 743	.503 0831
.638	.277 0799	.892 692	.528 3481	.688	.298 7946	.989 732	.502 5802
.639	.277 5142	.894 585	.527 8200	.689	.299 2289	.991 723	.502 0779
0.640	0.277 9485	1.896 481	0.527 2924	0.690	0.299 6632	1.993 716	0.501 5761
.641	.278 3828	.898 378	.526 7654	.691	.300 0975	.995 710	.501 0747
.642	.278 8171	.900 278	.526 2389	.692	.300 5318	.997 707	.500 5739
.643	.279 2514	.902 179	.525 7129	.693	.300 9661	.999 706	.500 0736
.644	.279 6856	.904 082	.525 1875	.694	.301 4004	2.001 706	.499 5738
0.645	0.280 1199	1.905 987	0.524 6625	0.695	0.301 8347	2.003 709	0.499 0744
.646	.280 5542	.907 894	.524 1381	.696	.302 2690	.005 714	.498 5756
.647	.280 9885	.909 803	.523 6143	.697	.302 7033	.007 720	.498 0773
.648	.281 4228	.911 714	.523 0909	.698	.303 1375	.009 729	.497 5795
.649	.281 8571	.913 626	.522 5681	.699	.303 5718	.011 740	.497 0821
0.650	0.282 2914	1.915 541	0.522 0458	0.700	0.304 0061	2.013 753	0.496 5853
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.700	0.304 0061	2.013 753	0.496 5853	0.750	0.325 7209	2.117 000	0.472 3666
.701	.304 4404	.015 767	.496 0890	.751	.326 1552	.119 118	.471 8944
.702	.304 8747	.017 784	.495 5931	.752	.326 5895	.121 238	.471 4228
.703	.305 3090	.019 803	.495 0978	.753	.327 0237	.123 361	.470 9516
.704	.305 7433	.021 824	.494 6029	.754	.327 4580	.125 485	.470 4809
0.705	0.306 1776	2.023 847	0.494 1086	0.755	0.327 8923	2.127 612	0.470 0106
.706	.306 6119	.025 872	.493 6147	.756	.328 3266	.129 740	.469 5408
.707	.307 0462	.027 898	.493 1213	.757	.328 7609	.131 871	.469 0715
.708	.307 4805	.029 927	.492 6285	.758	.329 1952	.134 004	.468 6027
.709	.307 9148	.031 958	.492 1361	.759	.329 6295	.136 139	.468 1343
0.710	0.308 3491	2.033 991	0.491 6442	0.760	0.330 0638	2.138 276	0.467 6664
.711	.308 7834	.036 026	.491 1528	.761	.330 4981	.140 416	.467 1990
.712	.309 2177	.038 063	.490 6619	.762	.330 9324	.142 557	.466 7320
.713	.309 6520	.040 102	.490 1715	.763	.331 3667	.144 701	.466 2655
.714	.310 0863	.042 144	.489 6815	.764	.331 8010	.146 846	.465 7995
0.715	0.310 5206	2.044 187	0.489 1921	0.765	0.332 2353	2.148 994	0.465 3339
.716	.310 9548	.046 232	.488 7032	.766	.332 6696	.151 144	.464 8688
.717	.311 3891	.048 279	.488 2147	.767	.333 1039	.153 297	.464 4042
.718	.311 8234	.050 328	.487 7267	.768	.333 5382	.155 451	.463 9400
.719	.312 2577	.052 380	.487 2393	.769	.333 9725	.157 608	.463 4763
0.720	0.312 6920	2.054 433	0.486 7523	0.770	0.334 4068	2.159 766	0.463 0131
.721	.313 1263	.056 489	.486 2657	.771	.334 8410	.161 927	.462 5503
.722	.313 5606	.058 546	.485 7797	.772	.335 2753	.164 090	.462 0880
.723	.313 9949	.060 606	.485 2942	.773	.335 7096	.166 255	.461 6261
.724	.314 4292	.062 667	.484 8091	.774	.336 1439	.168 423	.461 1647
0.725	0.314 8635	2.064 731	0.484 3246	0.775	0.336 5782	2.170 592	0.460 7038
.726	.315 2978	.066 797	.483 8405	.776	.337 0125	.172 764	.460 2433
.727	.315 7321	.068 865	.483 3569	.777	.337 4468	.174 938	.459 7833
.728	.316 1664	.070 935	.482 8738	.778	.337 8811	.177 114	.459 3237
.729	.316 6007	.073 007	.482 3911	.779	.338 3154	.179 292	.458 8646
0.730	0.317 0350	2.075 081	0.481 9090	0.780	0.338 7497	2.181 472	0.458 4060
.731	.317 4693	.077 157	.481 4273	.781	.339 1840	.183 655	.457 9478
.732	.317 9036	.079 235	.480 9461	.782	.339 6183	.185 840	.457 4901
.733	.318 3379	.081 315	.480 4654	.783	.340 0526	.188 027	.457 0329
.734	.318 7721	.083 398	.479 9852	.784	.340 4869	.190 216	.456 5760
0.735	0.319 2064	2.085 482	0.479 5055	0.785	0.340 9212	2.192 407	0.456 1197
.736	.319 6407	.087 569	.479 0262	.786	.341 3555	.194 600	.455 6638
.737	.320 0750	.089 657	.478 5474	.787	.341 7898	.196 796	.455 2084
.738	.320 5093	.091 748	.478 0691	.788	.342 2241	.198 994	.454 7534
.739	.320 9436	.093 841	.477 5913	.789	.342 6583	.201 194	.454 2989
0.740	0.321 3779	2.095 936	0.477 1139	0.790	0.343 0926	2.203 396	0.453 8448
.741	.321 8122	.098 032	.476 6370	.791	.343 5269	.205 601	.453 3912
.742	.322 2465	.100 132	.476 1606	.792	.343 9612	.207 808	.452 9380
.743	.322 6808	.102 233	.475 6847	.793	.344 3955	.210 017	.452 4853
.744	.323 1151	.104 336	.475 2093	.794	.344 8298	.212 228	.452 0330
0.745	0.323 5494	2.106 441	0.474 7343	0.795	0.345 2641	2.214 441	0.451 5812
.746	.323 9837	.108 549	.474 2598	.796	.345 6984	.216 657	.451 1299
.747	.324 4180	.110 659	.473 7858	.797	.346 1327	.218 874	.450 6790
.748	.324 8523	.112 770	.473 3122	.798	.346 5670	.221 094	.450 2285
.749	.325 2866	.114 884	.472 8392	.799	.347 0013	.223 316	.449 7785
0.750	0.325 7209	2.117 000	0.472 3666	0.800	0.347 4356	2.225 541	0.449 3290
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.800	0.347 4356	2.225 541	0.449 3290	0.850	0.369 1503	2.339 647	0.427 4149
.801	.347 8699	.227 768	.448 8799	.851	.369 5846	.341 988	.426 9877
.802	.348 3042	.229 996	.448 4312	.852	.370 0189	.344 331	.426 5610
.803	.348 7385	.232 228	.447 9830	.853	.370 4532	.346 676	.426 1346
.804	.349 1728	.234 461	.447 5352	.854	.370 8875	.349 024	.425 7087
0.805	0.349 6071	2.236 696	0.447 0879	0.855	0.371 3218	2.351 374	0.425 2832
.806	.350 0414	.238 934	.446 6411	.856	.371 7561	.353 727	.424 8581
.807	.350 4756	.241 174	.446 1946	.857	.372 1904	.356 082	.424 4335
.808	.350 9099	.243 417	.445 7487	.858	.372 6247	.358 439	.424 0093
.809	.351 3442	.245 661	.445 3031	.859	.373 0590	.360 799	.423 5855
0.810	0.351 7785	2.247 908	0.444 8581	0.860	0.373 4933	2.363 161	0.423 1621
.811	.352 2128	.250 157	.444 4134	.861	.373 9275	.365 525	.422 7391
.812	.352 6471	.252 408	.443 9692	.862	.374 3618	.367 892	.422 3166
.813	.353 0814	.254 662	.443 5255	.863	.374 7961	.370 261	.421 8945
.814	.353 5157	.256 918	.443 0822	.864	.375 2304	.372 632	.421 4728
0.815	0.353 9500	2.259 176	0.442 6393	0.865	0.375 6647	2.375 006	0.421 0516
.816	.354 3843	.261 436	.442 1969	.866	.376 0990	.377 382	.420 6307
.817	.354 8186	.263 699	.441 7549	.867	.376 5333	.379 761	.420 2103
.818	.355 2529	.265 963	.441 3134	.868	.376 9676	.382 142	.419 7903
.819	.355 6872	.268 230	.440 8723	.869	.377 4019	.384 525	.419 3707
0.820	0.356 1215	2.270 500	0.440 4317	0.870	0.377 8362	2.386 911	0.418 9515
.821	.356 5558	.272 771	.439 9914	.871	.378 2705	.389 299	.418 5328
.822	.356 9901	.275 045	.439 5517	.872	.378 7048	.391 689	.418 1145
.823	.357 4244	.277 322	.439 1123	.873	.379 1391	.394 082	.417 6966
.824	.357 8587	.279 600	.438 6734	.874	.379 5734	.396 478	.417 2791
0.825	0.358 2929	2.281 881	0.438 2350	0.875	0.380 0077	2.398 875	0.416 8620
.826	.358 7272	.284 164	.437 7970	.876	.380 4420	.401 275	.416 4454
.827	.359 1615	.286 449	.437 3594	.877	.380 8763	.403 678	.416 0291
.828	.359 5958	.288 737	.436 9223	.878	.381 3106	.406 083	.415 6133
.829	.360 0301	.291 027	.436 4856	.879	.381 7448	.408 490	.415 1979
0.830	0.360 4644	2.293 319	0.436 0493	0.880	0.382 1791	2.410 900	0.414 7829
.831	.360 8987	.295 613	.435 6135	.881	.382 6134	.413 312	.414 3683
.832	.361 3330	.297 910	.435 1781	.882	.383 0477	.415 726	.413 9542
.833	.361 7673	.300 209	.434 7431	.883	.383 4820	.418 143	.413 5404
.834	.362 2016	.302 510	.434 3086	.884	.383 9163	.420 563	.413 1271
0.835	0.362 6359	2.304 814	0.433 8745	0.885	0.384 3506	2.422 984	0.412 7142
.836	.363 0702	.307 120	.433 4408	.886	.384 7849	.425 409	.412 3017
.837	.363 5045	.309 428	.433 0076	.887	.385 2192	.427 835	.411 8896
.838	.363 9388	.311 739	.432 5748	.888	.385 6535	.430 264	.411 4779
.839	.364 3731	.314 052	.432 1424	.889	.386 0878	.432 696	.411 0666
0.840	0.364 8074	2.316 367	0.431 7105	0.890	0.386 5221	2.435 130	0.410 6558
.841	.365 2417	.318 685	.431 2790	.891	.386 9564	.437 566	.410 2453
.842	.365 6760	.321 004	.430 8480	.892	.387 3907	.440 005	.409 8353
.843	.366 1102	.323 327	.430 4173	.893	.387 8250	.442 446	.409 4256
.844	.366 5445	.325 651	.429 9871	.894	.388 2593	.444 890	.409 0164
0.845	0.366 9788	2.327 978	0.429 5574	0.895	0.388 6936	2.447 336	0.408 6076
.846	.367 4131	.330 307	.429 1280	.896	.389 1279	.449 784	.408 1992
.847	.367 8474	.332 638	.428 6991	.897	.389 5622	.452 235	.407 7912
.848	.368 2817	.334 972	.428 2706	.898	.389 9964	.454 689	.407 3836
.849	.368 7160	.337 308	.427 8426	.899	.390 4307	.457 145	.406 9764
0.850	0.369 1503	2.339 647	0.427 4149	0.900	0.390 8650	2.459 603	0.406 5697
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
0.900	0.390 8650	2.459 603	0.406 5697	0.950	0.412 5798	2.585 710	0.386 7410
.901	.391 2993	.462 064	.406 1633	.951	.413 0141	.588 297	.386 3545
.902	.391 7336	.464 527	.405 7573	.952	.413 4483	.590 886	.385 9683
.903	.392 1679	.466 993	.405 3518	.953	.413 8826	.593 478	.385 5825
.904	.392 6022	.469 461	.404 9466	.954	.414 3169	.596 073	.385 1971
0.905	0.393 0365	2.471 932	0.404 5419	0.955	0.414 7512	2.598 671	0.384 8121
.906	.393 4708	.474 405	.404 1375	.956	.415 1855	.601 271	.384 4275
.907	.393 9051	.476 881	.403 7336	.957	.415 6198	.603 873	.384 0433
.908	.394 3394	.479 359	.403 3301	.958	.416 0541	.606 478	.383 6594
.909	.394 7737	.481 839	.402 9269	.959	.416 4884	.609 086	.383 2760
0.910	0.395 2080	2.484 323	0.402 5242	0.960	0.416 9227	2.611 696	0.382 8929
.911	.395 6423	.486 808	.402 1219	.961	.417 3570	.614 309	.382 5102
.912	.396 0766	.489 296	.401 7200	.962	.417 7913	.616 925	.382 1279
.913	.396 5109	.491 787	.401 3185	.963	.418 2256	.619 543	.381 7459
.914	.396 9452	.494 280	.400 9173	.964	.418 6599	.622 164	.381 3644
0.915	0.397 3795	2.496 775	0.400 5166	0.965	0.419 0942	2.624 788	0.380 9832
.916	.397 8137	.499 273	.400 1163	.966	.419 5285	.627 414	.380 6024
.917	.398 2480	.501 774	.399 7164	.967	.419 9628	.630 042	.380 2220
.918	.398 6823	.504 277	.399 3169	.968	.420 3971	.632 674	.379 8420
.919	.399 1166	.506 782	.398 9178	.969	.420 8314	.635 308	.379 4623
0.920	0.399 5509	2.509 290	0.398 5190	0.970	0.421 2656	2.637 944	0.379 0830
.921	.399 9852	.511 801	.398 1207	.971	.421 6999	.640 584	.378 7041
.922	.400 4195	.514 314	.397 7228	.972	.422 1342	.643 226	.378 3256
.923	.400 8538	.516 830	.397 3253	.973	.422 5685	.645 870	.377 9475
.924	.401 2881	.519 348	.396 9281	.974	.423 0028	.648 517	.377 5697
0.925	0.401 7224	2.521 868	0.396 5314	0.975	0.423 4371	2.651 167	0.377 1924
.926	.402 1567	.524 391	.396 1351	.976	.423 8714	.653 820	.376 8153
.927	.402 5910	.526 917	.395 7391	.977	.424 3057	.656 475	.376 4387
.928	.403 0253	.529 445	.395 3436	.978	.424 7400	.659 133	.376 0625
.929	.403 4596	.531 976	.394 9485	.979	.425 1743	.661 793	.375 6866
0.930	0.403 8939	2.534 509	0.394 5537	0.980	0.425 6086	2.664 456	0.375 3111
.931	.404 3282	.537 045	.394 1594	.981	.426 0429	.667 122	.374 9360
.932	.404 7625	.539 583	.393 7654	.982	.426 4772	.669 790	.374 5612
.933	.405 1968	.542 124	.393 3718	.983	.426 9115	.672 462	.374 1869
.934	.405 6310	.544 668	.392 9786	.984	.427 3458	.675 135	.373 8129
0.935	0.406 0653	2.547 213	0.392 5859	0.985	0.427 7801	2.677 812	0.373 4392
.936	.406 4996	.549 762	.392 1935	.986	.428 2144	.680 491	.373 0660
.937	.406 9339	.552 313	.391 8015	.987	.428 6487	.683 173	.372 6931
.938	.407 3682	.554 867	.391 4099	.988	.429 0829	.685 857	.372 3206
.939	.407 8025	.557 423	.391 0187	.989	.429 5172	.688 545	.371 9485
0.940	0.408 2368	2.559 981	0.390 6278	0.990	0.429 9515	2.691 234	0.371 5767
.941	.408 6711	.562 543	.390 2374	.991	.430 3858	.693 927	.371 2053
.942	.409 1054	.565 107	.389 8474	.992	.430 8201	.696 622	.370 8343
.943	.409 5397	.567 673	.389 4577	.993	.431 2544	.699 320	.370 4636
.944	.409 9740	.570 242	.389 0684	.994	.431 6887	.702 021	.370 0934
0.945	0.410 4083	2.572 813	0.388 6796	0.995	0.432 1230	2.704 724	0.369 7234
.946	.410 8426	.575 387	.388 2911	.996	.432 5573	.707 430	.369 3539
.947	.411 2769	.577 964	.387 9030	.997	.432 9916	.710 139	.368 9847
.948	.411 7112	.580 543	.387 5153	.998	.433 4259	.712 851	.368 6159
.949	.412 1455	.583 125	.387 1280	.999	.433 8602	.715 565	.368 2475
0.950	0.412 5798	2.585 710	0.386 7410	1.000	0.434 2945	2.718 282	0.367 8794
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
1.000	0.434 2945	2.718 282	0.367 8794	1.050	0.456 0092	2.857 651	0.349 9377
.001	.434 7288	.721 001	.367 5117	.051	.456 4435	.860 510	.349 5880
.002	.435 1631	.723 724	.367 1444	.052	.456 8778	.863 372	.349 2386
.003	.435 5974	.726 449	.366 7775	.053	.457 3121	.866 237	.348 8895
.004	.436 0317	.729 177	.366 4109	.054	.457 7464	.869 105	.348 5408
1.005	0.436 4660	2.731 907	0.366 0446	1.055	0.458 1807	2.871 975	0.348 1924
.006	.436 9002	.734 641	.365 6788	.056	.458 6150	.874 849	.347 8444
.007	.437 3345	.737 377	.365 3133	.057	.459 0493	.877 725	.347 4967
.008	.437 7688	.740 115	.364 9481	.058	.459 4836	.880 604	.347 1494
.009	.438 2031	.742 857	.364 5834	.059	.459 9179	.883 486	.346 8024
1.010	0.438 6374	2.745 601	0.364 2190	1.060	0.460 3522	2.886 371	0.346 4558
.011	.439 0717	.748 348	.363 8549	.061	.460 7864	.889 259	.346 1095
.012	.439 5060	.751 098	.363 4913	.062	.461 2207	.892 150	.345 7636
.013	.439 9403	.753 850	.363 1280	.063	.461 6550	.895 043	.345 4180
.014	.440 3746	.756 605	.362 7650	.064	.462 0893	.897 940	.345 0728
1.015	0.440 8089	2.759 363	0.362 4024	1.065	0.462 5236	2.900 839	0.344 7279
.016	.441 2432	.762 124	.362 0402	.066	.462 9579	.903 741	.344 3833
.017	.441 6775	.764 888	.361 6783	.067	.463 3922	.906 646	.344 0391
.018	.442 1118	.767 654	.361 3169	.068	.463 8265	.909 555	.343 6952
.019	.442 5461	.770 423	.360 9557	.069	.464 2608	.912 466	.343 3517
1.020	0.442 9804	2.773 195	0.360 5949	1.070	0.464 6951	2.915 379	0.343 0085
.021	.443 4147	.775 969	.360 2345	.071	.465 1294	.918 296	.342 6657
.022	.443 8490	.778 747	.359 8745	.072	.465 5637	.921 216	.342 3232
.023	.444 2833	.781 527	.359 5148	.073	.465 9980	.924 139	.341 9810
.024	.444 7175	.784 310	.359 1554	.074	.466 4323	.927 064	.341 6392
1.025	0.445 1518	2.787 095	0.358 7965	1.075	0.466 8666	2.929 993	0.341 2978
.026	.445 5861	.789 884	.358 4378	.076	.467 3009	.932 924	.340 9566
.027	.446 0204	.792 675	.358 0796	.077	.467 7352	.935 859	.340 6158
.028	.446 4547	.795 469	.357 7217	.078	.468 1695	.938 796	.340 2754
.029	.446 8890	.798 266	.357 3641	.079	.468 6037	.941 736	.339 9353
1.030	0.447 3233	2.801 066	0.357 0070	1.080	0.469 0380	2.944 680	0.339 5955
.031	.447 7576	.803 868	.356 6501	.081	.469 4723	.947 626	.339 2561
.032	.448 1919	.806 674	.356 2937	.082	.469 9066	.950 575	.338 9170
.033	.448 6262	.809 482	.355 9375	.083	.470 3409	.953 527	.338 5783
.034	.449 0605	.812 293	.355 5818	.084	.470 7752	.956 482	.338 2399
1.035	0.449 4948	2.815 106	0.355 2264	1.085	0.471 2095	2.959 440	0.337 9018
.036	.449 9291	.817 923	.354 8713	.086	.471 6438	.962 401	.337 5641
.037	.450 3634	.820 742	.354 5166	.087	.472 0781	.965 365	.337 2267
.038	.450 7977	.823 564	.354 1623	.088	.472 5124	.968 331	.336 8896
.039	.451 2320	.826 389	.353 8083	.089	.472 9467	.971 301	.336 5529
1.040	0.451 6663	2.829 217	0.353 4547	1.090	0.473 3810	2.974 274	0.336 2165
.041	.452 1006	.832 048	.353 1014	.091	.473 8153	.977 250	.335 8804
.042	.452 5349	.834 881	.352 7485	.092	.474 2496	.980 229	.335 5447
.043	.452 9691	.837 717	.352 3959	.093	.474 6839	.983 210	.335 2094
.044	.453 4034	.840 557	.352 0437	.094	.475 1182	.986 195	.334 8743
1.045	0.453 8377	2.843 399	0.351 6918	1.095	0.475 5525	2.989 183	0.334 5396
.046	.454 2720	.846 243	.351 3403	.096	.475 9868	.992 173	.334 2052
.047	.454 7063	.849 091	.350 9891	.097	.476 4210	.995 167	.333 8712
.048	.455 1406	.851 942	.350 6383	.098	.476 8553	.998 164	.333 5375
.049	.455 5749	.854 795	.350 2879	.099	.477 2896	3.001 163	.333 2041
1.050	0.456 0092	2.857 651	0.349 9377	1.100	0.477 7239	3.004 166	0.332 8711
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
1.100	0.477 7239	3.004 166	0.332 8711	1.150	0.499 4387	3.158 193	0.316 6368
.101	.478 1582	.007 172	.332 5384	.151	.499 8729	.161 353	.316 3203
.102	.478 5925	.010 180	.332 2060	.152	.500 3072	.164 516	.316 0041
.103	.479 0268	.013 192	.331 8740	.153	.500 7415	.167 682	.315 6883
.104	.479 4611	.016 207	.331 5423	.154	.501 1758	.170 851	.315 3728
1.105	0.479 8954	3.019 224	0.331 2109	1.155	0.501 6101	3.174 023	0.315 0575
.106	.480 3297	.022 245	.330 8798	.156	.502 0444	.177 199	.314 7426
.107	.480 7640	.025 269	.330 5491	.157	.502 4787	.180 378	.314 4281
.108	.481 1983	.028 296	.330 2187	.158	.502 9130	.183 560	.314 1138
.109	.481 6326	.031 326	.329 8887	.159	.503 3473	.186 745	.313 7998
1.110	0.482 0669	3.034 358	0.329 5590	1.160	0.503 7816	3.189 933	0.313 4862
.111	.482 5012	.037 394	.329 2296	.161	.504 2159	.193 125	.313 1729
.112	.482 9355	.040 433	.328 9005	.162	.504 6502	.196 320	.312 8598
.113	.483 3698	.043 475	.328 5718	.163	.505 0845	.199 517	.312 5471
.114	.483 8041	.046 520	.328 2434	.164	.505 5188	.202 719	.312 2347
1.115	0.484 2383	3.049 568	0.327 9153	1.165	0.505 9531	3.205 923	0.311 9227
.116	.484 6726	.052 619	.327 5875	.166	.506 3874	.209 130	.311 6109
.117	.485 1069	.055 673	.327 2601	.167	.506 8217	.212 341	.311 2994
.118	.485 5412	.058 731	.326 9330	.168	.507 2560	.215 555	.310 9883
.119	.485 9755	.061 791	.326 6062	.169	.507 6902	.218 772	.310 6775
1.120	0.486 4098	3.064 854	0.326 2798	1.170	0.508 1245	3.221 993	0.310 3669
.121	.486 8441	.067 921	.325 9537	.171	.508 5588	.225 216	.310 0567
.122	.487 2784	.070 990	.325 6279	.172	.508 9931	.228 443	.309 7468
.123	.487 7127	.074 063	.325 3024	.173	.509 4274	.231 673	.309 4372
.124	.488 1470	.077 138	.324 9773	.174	.509 8617	.234 906	.309 1280
1.125	0.488 5813	3.080 217	0.324 6525	1.175	0.510 2960	3.238 143	0.308 8190
.126	.489 0156	.083 299	.324 3280	.176	.510 7303	.241 383	.308 5103
.127	.489 4499	.086 383	.324 0038	.177	.511 1646	.244 626	.308 2020
.128	.489 8842	.089 471	.323 6800	.178	.511 5989	.247 872	.307 8939
.129	.490 3185	.092 562	.323 3565	.179	.512 0332	.251 121	.307 5862
1.130	0.490 7528	3.095 657	0.323 0333	1.180	0.512 4675	3.254 374	0.307 2787
.131	.491 1871	.098 754	.322 7104	.181	.512 9018	.257 630	.306 9716
.132	.491 6214	.101 854	.322 3878	.182	.513 3361	.260 889	.306 6648
.133	.492 0556	.104 957	.322 0656	.183	.513 7704	.264 152	.306 3583
.134	.492 4899	.108 064	.321 7437	.184	.514 2047	.267 418	.306 0521
1.135	0.492 9242	3.111 174	0.321 4221	1.185	0.514 6390	3.270 687	0.305 7462
.136	.493 3585	.114 286	.321 1009	.186	.515 0733	.273 959	.305 4406
.137	.493 7928	.117 402	.320 7799	.187	.515 5075	.277 235	.305 1353
.138	.494 2271	.120 521	.320 4593	.188	.515 9418	.280 514	.304 8303
.139	.494 6614	.123 643	.320 1390	.189	.516 3761	.283 796	.304 5256
1.140	0.495 0957	3.126 768	0.319 8190	1.190	0.516 8104	3.287 081	0.304 2213
.141	.495 5300	.129 897	.319 4994	.191	.517 2447	.290 370	.303 9172
.142	.495 9643	.133 028	.319 1800	.192	.517 6790	.293 662	.303 6134
.143	.496 3986	.136 163	.318 8610	.193	.518 1133	.296 957	.303 3100
.144	.496 8329	.139 300	.318 5423	.194	.518 5476	.300 256	.303 0068
1.145	0.497 2672	3.142 441	0.318 2239	1.195	0.518 9819	3.303 558	0.302 7040
.146	.497 7015	.145 585	.317 9059	.196	.519 4162	.306 863	.302 4014
.147	.498 1358	.148 733	.317 5881	.197	.519 8505	.310 172	.302 0992
.148	.498 5701	.151 883	.317 2707	.198	.520 2848	.313 483	.301 7972
.149	.499 0044	.155 036	.316 9536	.199	.520 7191	.316 798	.301 4956
1.150	0.499 4387	3.158 193	0.316 6368	1.200	0.521 1534	3.320 117	0.301 1942
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
1.200	0.521 1534	3.320 117	0.301 1942	1.250	0.542 8681	3.490 343	0.286 5048
.201	.521 5877	.323 439	.300 8932	.251	.543 3024	.493 835	.286 2184
.202	.522 0220	.326 764	.300 5924	.252	.543 7367	.497 331	.285 9324
.203	.522 4563	.330 092	.300 2920	.253	.544 1710	.500 830	.285 6466
.204	.522 8906	.333 424	.299 9918	.254	.544 6053	.504 332	.285 3611
1.205	0.523 3249	3.336 759	0.299 6920	1.255	0.545 0396	3.507 838	0.285 0758
.206	.523 7591	.340 098	.299 3925	.256	.545 4739	.511 348	.284 7909
.207	.524 1934	.343 439	.299 0932	.257	.545 9082	.514 861	.284 5063
.208	.524 6277	.346 784	.298 7943	.258	.546 3425	.518 378	.284 2219
.209	.525 0620	.350 133	.298 4956	.259	.546 7768	.521 898	.283 9378
1.210	0.525 4963	3.353 485	0.298 1973	1.260	0.547 2110	3.525 421	0.283 6540
.211	.525 9306	.356 840	.297 8992	.261	.547 6453	.528 949	.283 3705
.212	.526 3649	.360 198	.297 6015	.262	.548 0796	.532 479	.283 0873
.213	.526 7992	.363 560	.297 3040	.263	.548 5139	.536 014	.282 8043
.214	.527 2335	.366 925	.297 0069	.264	.548 9482	.539 551	.282 5217
1.215	0.527 6678	3.370 294	0.296 7100	1.265	0.549 3825	3.543 093	0.282 2393
.216	.528 1021	.373 666	.296 4135	.266	.549 8168	.546 638	.281 9572
.217	.528 5364	.377 041	.296 1772	.267	.550 2511	.550 186	.281 6754
.218	.528 9707	.380 420	.295 8212	.268	.550 6854	.553 738	.281 3938
.219	.529 4050	.383 802	.295 5255	.269	.551 1197	.557 293	.281 1126
1.220	0.529 8393	3.387 188	0.295 2302	1.270	0.551 5540	3.560 853	0.280 8316
.221	.530 2736	.390 577	.294 9351	.271	.551 9883	.564 415	.280 5509
.222	.530 7079	.393 969	.294 6403	.272	.552 4226	.567 981	.280 2705
.223	.531 1422	.397 365	.294 3458	.273	.552 8569	.571 551	.279 9904
.224	.531 5764	.400 764	.294 0516	.274	.553 2912	.575 124	.279 7105
1.225	0.532 0107	3.404 166	0.293 7577	1.275	0.553 7255	3.578 701	0.279 4310
.226	.532 4450	.407 572	.293 4641	.276	.554 1598	.582 282	.279 1517
.227	.532 8793	.410 981	.293 1708	.277	.554 5941	.585 866	.278 8727
.228	.533 3136	.414 394	.292 8777	.278	.555 0283	.589 454	.278 5939
.229	.533 7479	.417 810	.292 5850	.279	.555 4626	.593 045	.278 3155
1.230	0.534 1822	3.421 230	0.292 2926	1.280	0.555 8969	3.596 640	0.278 0373
.231	.534 6165	.424 652	.292 0004	.281	.556 3312	.600 238	.277 7594
.232	.535 0508	.428 079	.291 7086	.282	.556 7655	.603 840	.277 4818
.233	.535 4851	.431 509	.291 4170	.283	.557 1998	.607 446	.277 2044
.234	.535 9194	.434 942	.291 1257	.284	.557 6341	.611 055	.276 9274
1.235	0.536 3537	3.438 379	0.290 8348	1.285	0.558 0684	3.614 668	0.276 6506
.236	.536 7880	.441 819	.290 5441	.286	.558 5027	.618 284	.276 3741
.237	.537 2223	.445 262	.290 2537	.287	.558 9370	.621 905	.276 0978
.238	.537 6566	.448 709	.289 9636	.288	.559 3713	.625 528	.275 8219
.239	.538 0909	.452 160	.289 6737	.289	.559 8056	.629 156	.275 5462
1.240	0.538 5252	3.455 613	0.289 3842	1.290	0.560 2399	3.632 787	0.275 2708
.241	.538 9595	.459 071	.289 0950	.291	.560 6742	.636 421	.274 9956
.242	.539 3937	.462 532	.288 8060	292	.561 1085	.640 059	.274 7208
.243	.539 8280	.465 996	.288 5174	293	.561 5428	.643 701	.274 4462
.244	.540 2623	.469 464	.288 2290	.294	.561 9771	.647 347	.274 1719
1.245	0.540 6966	3.472 935	0.287 9409	1.295	0.562 4114	3.650 996	0.273 8979
.246	.541 1309	.476 409	.287 6531	.296	.562 8456	.654 649	.273 6241
.247	.541 5652	.479 888	.287 3656	.297	.563 2799	.658 305	.273 3506
.248	.541 9995	.483 369	.287 0784	.298	.563 7142	.661 965	.273 0774
.249	.542 4338	.486 854	.286 7914	.299	.564 1485	.665 629	.272 8045
1.250	0.542 8681	3.490 343	0.286 5048	1.300	0.564 5828	3.669 297	0.272 5318
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
1.300	0.564 5828	3.669 297	0.272 5318	1.350	0.586 2976	3.857 426	0.259 2403
.301	.565 0171	.672 968	.272 2594	.351	.586 7318	.861 285	.258 9811
.302	.565 4514	.676 643	.271 9873	.352	.587 1661	.865 148	.258 7223
.303	.565 8857	.680 321	.271 7154	.353	.587 6004	.869 015	.258 4637
.304	.566 3200	.684 003	.271 4438	.354	.588 0347	.872 886	.258 2054
1.305	0.566 7543	3.687 689	0.271 1725	1.355	0.588 4690	3.876 761	0.257 9473
.306	.567 1886	.691 379	.270 9015	.356	.588 9033	.880 640	.257 6895
.307	.567 6229	.695 072	.270 6307	.357	.589 3376	.884 522	.257 4319
.308	.568 0572	.698 769	.270 3602	.358	.589 7719	.888 409	.257 1746
.309	.568 4915	.702 469	.270 0900	.359	.590 2062	.892 299	.256 9176
1.310	0.568 9258	3.706 174	0.269 8201	1.360	0.590 6405	3.896 193	0.256 6608
.311	.569 3601	.709 882	.269 5504	.361	.591 0748	.900 091	.256 4042
.312	.569 7944	.713 593	.269 2810	.362	.591 5091	.903 993	.256 1480
.313	.570 2287	.717 309	.269 0118	.363	.591 9434	.907 899	.255 8919
.314	.570 6629	.721 028	.268 7429	.364	.592 3777	.911 809	.255 6362
1.315	0.571 0972	3.724 751	0.268 4743	1.365	0.592 8120	3.915 723	0.255 3807
.316	.571 5315	.728 478	.268 2060	.366	.593 2463	.919 641	.255 1254
.317	.571 9658	.732 208	.267 9379	.367	.593 6806	.923 562	.254 8704
.318	.572 4001	.735 942	.267 6701	.368	.594 1149	.927 488	.254 6157
.319	.572 8344	.739 680	.267 4026	.369	.594 5491	.931 417	.254 3612
1.320	0.573 2687	3.743 421	0.267 1353	1.370	0.594 9834	3.935 351	0.254 1070
.321	.573 7030	.747 167	.266 8683	.371	.595 4177	.939 288	.253 8530
.322	.574 1373	.750 916	.266 6016	.372	.595 8520	.943 229	.253 5993
.323	.574 5716	.754 669	.266 3351	.373	.596 2863	.947 174	.253 3458
.324	.575 0059	.758 425	.266 0689	.374	.596 7206	.951 124	.253 0926
1.325	0.575 4402	3.762 185	0.265 8030	1.375	0.597 1549	3.955 077	0.252 8396
.326	.575 8745	.765 949	.265 5373	.376	.597 5892	.959 034	.252 5869
.327	.576 3088	.769 717	.265 2719	.377	.598 0235	.962 995	.252 3344
.328	.576 7431	.773 489	.265 0067	.378	.598 4578	.966 960	.252 0822
.329	.577 1774	.777 264	.264 7419	.379	.598 8921	.970 929	.251 8303
1.330	0.577 6117	3.781 043	0.264 4773	1.380	0.599 3264	3.974 902	0.251 5786
.331	.578 0460	.784 826	.264 2129	.381	.599 7607	.978 879	.251 3271
.332	.578 4802	.788 613	.263 9488	.382	.600 1950	.982 859	.251 0759
.333	.578 9145	.792 404	.263 6850	.383	.600 6293	.986 844	.250 8249
.334	.579 3488	.796 198	.263 4215	.384	.601 0636	.990 833	.250 5742
1.335	0.579 7831	3.799 996	0.263 1582	1.385	0.601 4979	3.994 826	0.250 3238
.336	.580 2174	.803 798	.262 8951	.386	.601 9322	.998 823	.250 0736
.337	.580 6517	.807 604	.262 6324	.387	.602 3664	4.002 824	.249 8237
.338	.581 0860	.811 413	.262 3699	.388	.602 8007	.006 828	.249 5740
.339	.581 5203	.815 226	.262 1076	.389	.603 2350	.010 837	.249 3245
1.340	0.581 9546	3.819 044	0.261 8457	1.390	0.603 6693	4.014 850	0.249 0753
.341	.582 3889	.822 864	.261 5840	.391	.604 1036	.018 867	.248 8264
.342	.582 8232	.826 689	.261 3225	.392	.604 5379	.022 888	.248 5777
.343	.583 2575	.830 518	.261 0613	.393	.604 9722	.026 913	.248 3292
.344	.583 6918	.834 350	.260 8004	.394	.605 4065	.030 942	.248 0810
1.345	0.584 1261	3.838 187	0.260 5397	1.395	0.605 8408	4.034 975	0.247 8330
.346	.584 5604	.842 027	.260 2793	.396	.606 2751	.039 012	.247 5853
.347	.584 9947	.845 871	.260 0191	.397	.606 7094	.043 053	.247 3379
.348	.585 4290	.849 718	.259 7593	.398	.607 1437	.047 098	.247 0907
.349	.585 8633	.853 570	.259 4996	.399	.607 5780	.051 147	.246 8437
1.350	0.586 2976	3.857 426	0.259 2403	1.400	0.608 0123	4.055 200	0.246 5970
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
1.400	0.608 0123	4.055 200	0.246 5970	1.450	0.629 7270	4.263 115	0.234 5703
.401	.608 4466	.059 257	.246 3505	.451	.630 1613	.267 380	.234 3358
.402	.608 8809	.063 318	.246 1043	.452	.630 5956	.271 649	.234 1016
.403	.609 3152	.067 384	.245 8583	.453	.631 0299	.275 923	.233 8676
.404	.609 7495	.071 453	.245 6125	.454	.631 4642	.280 201	.233 6339
1.405	0.610 1837	4.075 527	0.245 3671	1.455	0.631 8985	4.284 483	0.233 4004
.406	.610 6180	.079 604	.245 1218	.456	.632 3328	.288 770	.233 1671
.407	.611 0523	.083 686	.244 8768	.457	.632 7671	.293 061	.232 9340
.408	.611 4866	.087 772	.244 6321	.458	.633 2014	.297 356	.232 7012
.409	.611 9209	.091 861	.244 3875	.459	.633 6356	.301 656	.232 4686
1.410	0.612 3552	4.095 955	0.244 1433	1.460	0.634 0699	4.305 960	0.232 2363
.411	.612 7895	.100 053	.243 8993	.461	.634 5042	.310 268	.232 0042
.412	.613 2238	.104 156	.243 6555	.462	.634 9385	.314 580	.231 7723
.413	.613 6581	.108 262	.243 4120	.463	.635 3728	.318 897	.231 5406
.414	.614 0924	.112 372	.243 1687	.464	.635 8071	.323 218	.231 3092
1.415	0.614 5267	4.116 486	0.242 9256	1.465	0.636 2414	4.327 543	0.231 0780
.416	.614 9610	.120 605	.242 6828	.466	.636 6757	.331 873	.230 8470
.417	.615 3953	.124 728	.242 4402	.467	.637 1100	.336 207	.230 6163
.418	.615 8296	.128 854	.242 1979	.468	.637 5443	.340 545	.230 3858
.419	.616 2639	.132 985	.241 9559	.469	.637 9786	.344 888	.230 1555
1.420	0.616 6982	4.137 120	0.241 7140	1.470	0.638 4129	4.349 235	0.229 9255
.421	.617 1325	.141 260	.241 4724	.471	.638 8472	.353 587	.229 6957
.422	.617 5668	.145 403	.241 2311	.472	.639 2815	.357 942	.229 4661
.423	.618 0010	.149 550	.240 9900	.473	.639 7158	.362 302	.229 2367
.424	.618 4353	.153 702	.240 7491	.474	.640 1501	.366 667	.229 0076
1.425	0.618 8696	4.157 858	0.240 5085	1.475	0.640 5844	4.371 036	0.228 7787
.426	.619 3039	.162 018	.240 2681	.476	.641 0187	.375 409	.228 5501
.427	.619 7382	.166 182	.240 0279	.477	.641 4529	.379 787	.228 3216
.428	.620 1725	.170 350	.239 7880	.478	.641 8872	.384 169	.228 0934
.429	.620 6068	.174 523	.239 5484	.479	.642 3215	.388 555	.227 8654
1.430	0.621 0411	4.178 699	0.239 3089	1.480	0.642 7558	4.392 946	0.227 6377
.431	.621 4754	.182 880	.239 0697	.481	.643 1901	.397 341	.227 4102
.432	.621 9097	.187 065	.238 8308	.482	.643 6244	.401 740	.227 1829
.433	.622 3440	.191 254	.238 5921	.483	.644 0587	.406 144	.226 9558
.434	.622 7783	.195 447	.238 3536	.484	.644 4930	.410 553	.226 7290
1.435	0.623 2126	4.199 645	0.238 1154	1.485	0.644 9273	4.414 965	0.226 5023
.436	.623 6469	.203 847	.237 8774	.486	.645 3616	.419 383	.226 2760
.437	.624 0812	.208 053	.237 6396	.487	.645 7959	.423 804	.226 0498
.438	.624 5155	.212 263	.237 4021	.488	.646 2302	.428 230	.225 8239
.439	.624 9498	.216 477	.237 1648	.489	.646 6645	.432 661	.225 5981
1.440	0.625 3841	4.220 696	0.236 9278	1.490	0.647 0988	4.437 096	0.225 3727
.441	.625 8183	.224 919	.236 6909	.491	.647 5331	.441 535	.225 1474
.442	.626 2526	.229 146	.236 4544	.492	.647 9674	.445 979	.224 9224
.443	.626 6869	.233 377	.236 2180	.493	.648 4017	.450 427	.224 6976
.444	.627 1212	.237 612	.235 9819	.494	.648 8360	.454 879	.224 4730
1.445	0.627 5555	4.241 852	0.235 7461	1.495	0.649 2703	4.459 337	0.224 2486
.446	.627 9898	.246 096	.235 5104	.496	.649 7045	.463 798	.224 0245
.447	.628 4241	.250 344	.235 2751	.497	.650 1388	.468 264	.223 8006
.448	.628 8584	.254 597	.235 0399	.498	.650 5731	.472 735	.223 5769
.449	.629 2927	.258 854	.234 8050	.499	.651 0074	.477 210	.223 3534
1.450	0.629 7270	4.263 115	0.234 5703	1.500	0.651 4417	4.481 689	0.223 1302
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
1.500	0.651 4417	4.481 689	0.223 1302	1.550	0.673 1564	4.711 470	0.212 2480
.501	.651 8760	.486 173	.222 9071	.551	.673 5907	.716 184	.212 0358
.502	.652 3103	.490 661	.222 6843	.552	.674 0250	.720 903	.211 8239
.503	.652 7446	.495 154	.222 4618	.553	.674 4593	.725 626	.211 6122
.504	.653 1789	.499 652	.222 2394	.554	.674 8936	.730 354	.211 4007
1.505	0.653 6132	4.504 154	0.222 0173	1.555	0.675 3279	4.735 087	0.211 1894
.506	.654 0475	.508 660	.221 7954	.556	.675 7622	.739 824	.210 9783
.507	.654 4818	.513 171	.221 5737	.557	.676 1965	.744 566	.210 7674
.508	.654 9161	.517 686	.221 3522	.558	.676 6308	.749 313	.210 5568
.509	.655 3504	.522 206	.221 1310	.559	.677 0651	.754 065	.210 3463
1.510	0.655 7847	4.526 731	0.220 9100	1.560	0.677 4994	4.758 821	0.210 1361
.511	.656 2190	.531 260	.220 6892	.561	.677 9337	.763 582	.209 9260
.512	.656 6533	.535 793	.220 4686	.562	.678 3680	.768 348	.209 7162
.513	.657 0876	.540 331	.220 2482	.563	.678 8023	.773 119	.209 5066
.514	.657 5218	.544 874	.220 0281	.564	.679 2366	.777 895	.209 2972
1.515	0.657 9561	4.549 421	0.219 8082	1.565	0.679 6709	4.782 675	0.209 0880
.516	.658 3904	.553 973	.219 5885	.566	.680 1052	.787 460	.208 8790
.517	.658 8247	.558 529	.219 3690	.567	.680 5395	.792 250	.208 6703
.518	.659 2590	.563 090	.219 1497	.568	.680 9737	.797 045	.208 4617
.519	.659 6933	.567 655	.218 9307	.569	.681 4080	.801 844	.208 2533
1.520	0.660 1276	4.572 225	0.218 7119	1.570	0.681 8423	4.806 648	0.208 0452
.521	.660 5619	.576 800	.218 4933	.571	.682 2766	.811 457	.207 8372
.522	.660 9962	.581 379	.218 2749	.572	.682 7109	.816 271	.207 6295
.523	.661 4305	.585 962	.218 0567	.573	.683 1452	.821 090	.207 4220
.524	.661 8648	.590 551	.217 8388	.574	.683 5795	.825 913	.207 2147
1.525	0.662 2991	4.595 144	0.217 6211	1.575	0.684 0138	4.830 742	0.207 0076
.526	.662 7334	.599 741	.217 4035	.576	.684 4481	.835 575	.206 8006
.527	.663 1677	.604 343	.217 1862	.577	.684 8824	.840 413	.206 5940
.528	.663 6020	.608 950	.216 9692	.578	.685 3167	.845 256	.206 3875
.529	.664 0363	.613 561	.216 7523	.579	.685 7510	.850 103	.206 1812
1.530	0.664 4706	4.618 177	0.216 5357	1.580	0.686 1853	4.854 956	0.205 9751
.531	.664 9049	.622 797	.216 3192	.581	.686 6196	.859 813	.205 7692
.532	.665 3391	.627 422	.216 1030	.582	.687 0539	.864 675	.205 5636
.533	.665 7734	.632 052	.215 8870	.583	.687 4882	.869 543	.205 3581
.534	.666 2077	.636 687	.215 6713	.584	.687 9225	.874 415	.205 1528
1.535	0.666 6420	4.641 326	0.215 4557	1.585	0.688 3568	4.879 291	0.204 9478
.536	.667 0763	.645 969	.215 2403	.586	.688 7910	.884 173	.204 7429
.537	.667 5106	.650 617	.215 0252	.587	.689 2253	.889 060	.204 5383
.538	.667 9449	.655 270	.214 8103	.588	.689 6596	.893 951	.204 3339
.539	.668 3792	.659 928	.214 5956	.589	.690 0939	.898 848	.204 1296
1.540	0.668 8135	4.664 590	0.214 3811	1.590	0.690 5282	4.903 749	0.203 9256
.541	.669 2478	.669 257	.214 1668	.591	.690 9625	.908 655	.203 7218
.542	.669 6821	.673 929	.213 9528	.592	.691 3968	.913 566	.203 5182
.543	.670 1164	.678 605	.213 7389	.593	.691 8311	.918 482	.203 3148
.544	.670 5507	.683 286	.213 5253	.594	.692 2654	.923 403	.203 1115
1.545	0.670 9850	4.687 972	0.213 3119	1.595	0.692 6997	4.928 329	0.202 9085
.546	.671 4193	.692 662	.213 0987	.596	.693 1340	.933 260	.202 7057
.547	.671 8536	.697 357	.212 8857	.597	.693 5683	.938 196	.202 5031
.548	.672 2879	.702 057	.212 6729	.598	.694 0026	.943 136	.202 3007
.549	.672 7222	.706 761	.212 4603	.599	.694 4369	.948 082	.202 0985
1.550	0.673 1564	4.711 470	0.212 2480	1.600	0.694 8712	4.953 032	0.201 8965
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
1.600	0.694 8712	4.953 032	0.201 8965	1.650	0.716 5859	5.206 980	0.192 0499
.601	.695 3055	.957 988	.201 6947	.651	.717 0202	.212 189	.191 8580
.602	.695 7398	.962 948	.201 4931	.652	.717 4545	.217 404	.191 6662
.603	.696 1741	.967 914	.201 2917	.653	.717 8888	.222 624	.191 4746
.604	.696 6083	.972 884	.201 0905	.654	.718 3231	.227 849	.191 2832
1.605	0.697 0426	4.977 860	0.200 8896	1.655	0.718 7574	5.233 080	0.191 0921
.606	.697 4769	.982 840	.200 6888	.656	.719 1917	.238 316	.190 9011
.607	.697 9112	.987 825	.200 4882	.657	.719 6260	.243 557	.190 7103
.608	.698 3455	.992 816	.200 2878	.658	.720 0603	.248 803	.190 5196
.609	.698 7798	.997 811	.200 0876	.659	.720 4945	.254 054	.190 3292
1.610	0.699 2141	5.002 811	0.199 8876	1.660	0.720 9288	5.259 311	0.190 1390
.611	.699 6484	.007 817	.199 6878	.661	.721 3631	.264 573	.189 9489
.612	.700 0827	.012 827	.199 4882	.662	.721 7974	.269 840	.189 7591
.613	.700 5170	.017 842	.199 2888	.663	.722 2317	.275 112	.189 5694
.614	.700 9513	.022 863	.199 0897	.664	.722 6660	.280 390	.189 3799
1.615	0.701 3856	5.027 888	0.198 8907	1.665	0.723 1003	5.285 673	0.189 1907
.616	.701 8199	.032 918	.198 6919	.666	.723 5346	.290 962	.189 0016
.617	.702 2542	.037 954	.198 4933	.667	.723 9689	.296 255	.188 8127
.618	.702 6885	.042 994	.198 2949	.668	.724 4032	.301 554	.188 6239
.619	.703 1228	.048 040	.198 0967	.669	.724 8375	.306 858	.188 4354
1.620	0.703 5571	5.053 090	0.197 8987	1.670	0.725 2718	5.312 168	0.188 2471
.621	.703 9914	.058 146	.197 7009	.671	.725 7061	.317 483	.188 0589
.622	.704 4256	.063 207	.197 5033	.672	.726 1404	.322 803	.187 8709
.623	.704 8599	.068 272	.197 3059	.673	.726 5747	.328 128	.187 6832
.624	.705 2942	.073 343	.197 1087	.674	.727 0090	.333 459	.187 4956
1.625	0.705 7285	5.078 419	0.196 9117	1.675	0.727 4433	5.338 795	0.187 3082
.626	.706 1628	.083 500	.196 7149	.676	.727 8776	.344 137	.187 1210
.627	.706 5971	.088 586	.196 5182	.677	.728 3118	.349 483	.186 9339
.628	.707 0314	.093 677	.196 3218	.678	.728 7461	.354 836	.186 7471
.629	.707 4657	.098 773	.196 1256	.679	.729 1804	.360 193	.186 5604
1.630	0.707 9000	5.103 875	0.195 9296	1.680	0.729 6147	5.365 556	0.186 3740
.631	.708 3343	.108 981	.195 7337	.681	.730 0490	.370 924	.186 1877
.632	.708 7686	.114 093	.195 5381	.682	.730 4833	.376 298	.186 0016
.633	.709 2029	.119 209	.195 3427	.683	.730 9176	.381 677	.185 8157
.634	.709 6372	.124 331	.195 1474	.684	.731 3519	.387 061	.185 6300
1.635	0.710 0715	5.129 458	0.194 9524	1.685	0.731 7862	5.392 451	0.185 4444
.636	.710 5058	.134 590	.194 7575	.686	.732 2205	.397 846	.185 2591
.637	.710 9401	.139 727	.194 5629	.687	.732 6548	.403 247	.185 0739
.638	.711 3744	.144 869	.194 3684	.688	.733 0891	.408 653	.184 8889
.639	.711 8087	.150 017	.194 1741	.689	.733 5234	.414 064	.184 7041
1.640	0.712 2430	5.155 170	0.193 9800	1.690	0.733 9577	5.419 481	0.184 5195
.641	.712 6772	.160 327	.193 7862	.691	.734 3920	.424 903	.184 3351
.642	.713 1115	.165 490	.193 5925	.692	.734 8263	.430 331	.184 1509
.643	.713 5458	.170 658	.193 3990	.693	.735 2606	.435 764	.183 9668
.644	.713 9801	.175 831	.193 2057	.694	.735 6949	.441 202	.183 7829
1.645	0.714 4144	5.181 010	0.193 0126	1.695	0.736 1291	5.446 646	0.183 5992
.646	.714 8487	.186 194	.192 8196	.696	.736 5634	.452 095	.183 4157
.647	.715 2830	.191 382	.192 6269	.697	.736 9977	.457 550	.183 2324
.648	.715 7173	.196 576	.192 4344	.698	.737 4320	.463 010	.183 0493
.649	.716 1516	.201 775	.192 2421	.699	.737 8663	.468 476	.182 8663
1.650	0.716 5859	5.206 980	0.192 0499	1.700	0.738 3006	5.473 947	0.182 6835
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
1.700	0.738 3006	5.473 947	0.182 6835	1.750	0.760 0153	5.754 603	0.173 7739
.701	.738 7349	.479 424	.182 5009	.751	.760 4496	.760 360	.173 6003
.702	.739 1692	.484 906	.182 3185	.752	.760 8839	.766 123	.173 4267
.703	.739 6035	.490 394	.182 1363	.753	.761 3182	.771 892	.173 2534
.704	.740 0378	.495 887	.181 9542	.754	.761 7525	.777 667	.173 0802
1.705	0.740 4721	5.501 386	0.181 7724	1.755	0.762 1868	5.783 448	0.172 9072
.706	.740 9064	.506 890	.181 5907	.756	.762 6211	.789 234	.172 7344
.707	.741 3407	.512 399	.181 4092	.757	.763 0554	.795 026	.172 5618
.708	.741 7750	.517 915	.181 2279	.758	.763 4897	.800 824	.172 3893
.709	.742 2093	.523 435	.181 0467	.759	.763 9240	.806 628	.172 2170
1.710	0.742 6436	5.528 961	0.180 8658	1.760	0.764 3583	5.812 437	0.172 0449
.711	.743 0779	.534 493	.180 6850	.761	.764 7926	.818 253	.171 8729
.712	.743 5122	.540 030	.180 5044	.762	.765 2269	.824 074	.171 7011
.713	.743 9464	.545 573	.180 3240	.763	.765 6612	.829 901	.171 5295
.714	.744 3807	.551 122	.180 1438	.764	.766 0955	.835 734	.171 3581
1.715	0.744 8150	5.556 676	0.179 9637	1.765	0.766 5298	5.841 572	0.171 1868
.716	.745 2493	.562 235	.179 7838	.766	.766 9641	.847 417	.171 0157
.717	.745 6836	.567 800	.179 6042	.767	.767 3983	.853 267	.170 8448
.718	.746 1179	.573 371	.179 4246	.768	.767 8326	.859 123	.170 6740
.719	.746 5522	.578 947	.179 2453	.769	.768 2669	.864 985	.170 5034
1.720	0.746 9865	5.584 528	0.179 0661	1.770	0.768 7012	5.870 853	0.170 3330
.721	.747 4208	.590 116	.178 8872	.771	.769 1355	.876 727	.170 1627
.722	.747 8551	.595 709	.178 7084	.772	.769 5698	.882 607	.169 9927
.723	.748 2894	.601 307	.178 5298	.773	.770 0041	.888 492	.169 8228
.724	.748 7237	.606 911	.178 3513	.774	.770 4384	.894 384	.169 6530
1.725	0.749 1580	5.612 521	0.178 1731	1.775	0.770 8727	5.900 281	0.169 4834
.726	.749 5923	.618 136	.177 9950	.776	.771 3070	.906 184	.169 3141
.727	.750 0266	.623 757	.177 8171	.777	.771 7413	.912 094	.169 1448
.728	.750 4609	.629 384	.177 6393	.778	.772 1756	.918 009	.168 9758
.729	.750 8952	.635 016	.177 4618	.779	.772 6099	.923 930	.168 8069
1.730	0.751 3295	5.640 654	0.177 2844	1.780	0.773 0442	5.929 856	0.168 6381
.731	.751 7637	.646 297	.177 1072	.781	.773 4785	.935 789	.168 4696
.732	.752 1980	.651 947	.176 9302	.782	.773 9128	.941 728	.168 3012
.733	.752 6323	.657 601	.176 7534	.783	.774 3471	.947 673	.168 1330
.734	.753 0666	.663 262	.176 5767	.784	.774 7814	.953 623	.167 9649
1.735	0.753 5009	5.668 928	0.176 4002	1.785	0.775 2157	5.959 580	0.167 7971
.736	.753 9352	.674 600	.176 2239	.785	.775 6499	.965 543	.167 6293
.737	.754 3695	.680 277	.176 0478	.787	.776 0842	.971 511	.167 4618
.738	.754 8038	.685 960	.175 8718	.788	.776 5185	.977 486	.167 2944
.739	.755 2381	.691 649	.175 6960	.789	.776 9528	.983 466	.167 1272
1.740	0.755 6724	5.697 343	0.175 5204	1.790	0.777 3871	5.989 452	0.166 9602
.741	.756 1067	.703 044	.175 3450	.791	.777 8214	.995 445	.166 7933
.742	.756 5410	.708 750	.175 1697	.792	.778 2557	6.001 443	.166 6266
.743	.756 9753	.714 461	.174 9946	.793	.778 6900	.007 448	.166 4600
.744	.757 4096	.720 178	.174 8197	.794	.779 1243	.013 458	.166 2937
1.745	0.757 8439	5.725 901	0.174 6450	1.795	0.779 5586	6.019 475	0.166 1275
.746	.758 2782	.731 630	.174 4704	.796	.779 9929	.025 497	.165 9614
.747	.758 7125	.737 365	.174 2960	.797	.780 4272	.031 526	.165 7955
.748	.759 1468	.743 105	.174 1218	.798	.780 8615	.037 560	.165 6298
.749	.759 5810	.748 851	.173 9478	.799	.781 2958	.043 601	.165 4643
1.750	0.760 0153	5.754 603	0.173 7739	1.800	0.781 7301	6.049 647	0.165 2989
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}
1.800	0.781 7301	6.049 647	0.165 2989
.801	.782 1644	.055 700	.165 1337
.802	.782 5987	.061 759	.164 9686
.803	.783 0330	.067 824	.164 8037
.804	.783 4672	.073 895	.164 6390
1.805	0.783 9015	6.079 971	0.164 4745
.806	.784 3358	.086 054	.164 3101
.807	.784 7701	.092 144	.164 1458
.808	.785 2044	.098 239	.163 9818
.809	.785 6387	.104 340	.163 8179
1.810	0.786 0730	6.110 447	0.163 6541
.811	.786 5073	.116 561	.163 4906
.812	.786 9416	.122 681	.163 3272
.813	.787 3759	.128 806	.163 1639
.814	.787 8102	.134 938	.163 0008
1.815	0.788 2445	6.141 076	0.162 8379
.816	.788 6788	.147 220	.162 6752
.817	.789 1131	.153 371	.162 5126
.818	.789 5474	.159 527	.162 3501
.819	.789 9817	.165 690	.162 1879
1.820	0.790 4160	6.171 858	0.162 0258
.821	.790 8503	.178 033	.161 8638
.822	.791 2845	.184 215	.161 7020
.823	.791 7188	.190 402	.161 5404
.824	.792 1531	.196 595	.161 3789
1.825	0.792 5874	6.202 795	0.161 2176
.826	.793 0217	.209 001	.161 0565
.827	.793 4560	.215 213	.160 8955
.828	.793 8903	.221 431	.160 7347
.829	.794 3246	.227 656	.160 5741
1.830	0.794 7589	6.233 887	0.160 4136
.831	.795 1932	.240 124	.160 2532
.832	.795 6275	.246 367	.160 0931
.833	.796 0618	.252 616	.159 9330
.834	.796 4961	.258 872	.159 7732
1.835	0.796 9304	6.265 134	0.159 6135
.836	.797 3647	.271 402	.159 4540
.837	.797 7990	.277 677	.159 2946
.838	.798 2333	.283 958	.159 1354
.839	.798 6676	.290 245	.158 9763
1.840	0.799 1018	6.296 538	0.158 8174
.841	.799 5361	.302 838	.158 6587
.842	.799 9704	.309 144	.158 5001
.843	.800 4047	.315 456	.158 3417
.844	.800 8390	.321 775	.158 1834
1.845	0.801 2733	6.328 100	0.158 0253
.846	.801 7076	.334 431	.157 8674
.847	.802 1419	.340 769	.157 7096
.848	.802 5762	.347 113	.157 5520
.849	.803 0105	.353 463	.157 3945
1.850	0.803 4448	6.359 820	0.157 2372
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}
1.850	0.803 4448	6.359 820	0.157 2372
.851	.803 8791	.366 183	.157 0800
.852	.804 3134	.372 552	.156 9230
.853	.804 7477	.378 928	.156 7662
.854	.805 1820	.385 310	.156 6095
1.855	0.805 6163	6.391 698	0.156 4529
.856	.806 0506	.398 093	.156 2966
.857	.806 4849	.404 494	.156 1403
.858	.806 9191	.410 902	.155 9843
.859	.807 3534	.417 316	.155 8284
1.860	0.807 7877	6.423 737	0.155 6726
.861	.808 2220	.430 164	.155 5170
.862	.808 6563	.436 597	.155 3616
.863	.809 0906	.443 037	.155 2063
.864	.809 5249	.449 483	.155 0512
1.865	0.809 9592	6.455 936	0.154 8962
.866	.810 3935	.462 395	.154 7414
.867	.810 8278	.468 861	.154 5867
.868	.811 2621	.475 333	.154 4322
.869	.811 6964	.481 811	.154 2779
1.870	0.812 1307	6.488 296	0.154 1237
.871	.812 5650	.494 788	.153 9696
.872	.812 9993	.501 286	.153 8157
.873	.813 4336	.507 791	.153 6620
.874	.813 8679	.514 302	.153 5084
1.875	0.814 3022	6.520 819	0.153 3550
.876	.814 7364	.527 343	.153 2017
.877	.815 1707	.533 874	.153 0486
.878	.815 6050	.540 411	.152 8956
.879	.816 0393	.546 955	.152 7428
1.880	0.816 4736	6.553 505	0.152 5901
.881	.816 9079	.560 062	.152 4376
.882	.817 3422	.566 625	.152 2852
.883	.817 7765	.573 195	.152 1330
.884	.818 2108	.579 771	.151 9810
1.885	0.818 6451	6.586 354	0.151 8291
.886	.819 0794	.592 944	.151 6773
.887	.819 5137	.599 540	.151 5257
.888	.819 9480	.606 143	.151 3743
.889	.820 3823	.612 753	.151 2230
1.890	0.820 8166	6.619 369	0.151 0718
.891	.821 2509	.625 991	.150 9208
.892	.821 6852	.632 621	.150 7700
.893	.822 1195	.639 257	.150 6193
.894	.822 5537	.645 899	.150 4687
1.895	0.822 9880	6.652 548	0.150 3183
.896	.823 4223	.659 204	.150 1681
.897	.823 8566	.665 867	.150 0180
.898	.824 2909	.672 536	.149 8681
.899	.824 7252	.679 212	.149 7183
1.900	0.825 1595	6.685 894	0.149 5686
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
1.900	0.825 1595	6.685 894	0.149 5686	1.950	0.846 8742	7.028 688	0.142 2741
.901	.825 5938	.692 584	.149 4191	.951	.847 3085	.035 720	.142 1319
.902	.826 0281	.699 280	.149 2698	.952	.847 7428	.042 759	.141 9898
.903	.826 4624	.705 982	.149 1206	.953	.848 1771	.049 805	.141 8479
.904	.826 8967	.712 692	.148 9715	.954	.848 6114	.056 859	.141 7061
1.905	0.827 3310	6.719 408	0.148 8226	1.955	0.849 0457	7.063 919	0.141 5645
.906	.827 7653	.726 130	.148 6739	.956	.849 4800	.070 986	.141 4230
.907	.828 1996	.732 860	.148 5253	.957	.849 9143	.078 061	.141 2816
.908	.828 6339	.739 596	.148 3768	.958	.850 3486	.085 143	.141 1404
.909	.829 0682	.746 339	.148 2285	.959	.850 7829	.092 231	.140 9993
1.910	0.829 5025	6.753 089	0.148 0804	1.960	0.851 2172	7.099 327	0.140 8584
.911	.829 9368	.759 845	.147 9324	.961	.851 6515	.106 430	.140 7176
.912	.830 3710	.766 608	.147 7845	.962	.852 0858	.113 540	.140 5770
.913	.830 8053	.773 378	.147 6368	.963	.852 5201	.120 657	.140 4365
.914	.831 2396	.780 155	.147 4892	.964	.852 9544	.127 781	.140 2961
1.915	0.831 6739	6.786 939	0.147 3418	1.965	0.853 3887	7.134 913	0.140 1559
.916	.832 1082	.793 729	.147 1946	.966	.853 8230	.142 051	.140 0158
.917	.832 5425	.800 526	.147 0474	.967	.854 2572	.149 197	.139 8759
.918	.832 9768	.807 330	.146 9005	.968	.854 6915	.156 349	.139 7360
.919	.833 4111	.814 141	.146 7536	.969	.855 1258	.163 509	.139 5964
1.920	0.833 8454	6.820 958	0.146 6070	1.970	0.855 5601	7.170 676	0.139 4569
.921	.834 2797	.827 783	.146 4604	.971	.855 9944	.177 851	.139 3175
.922	.834 7140	.834 614	.146 3140	.972	.856 4287	.185 032	.139 1782
.923	.835 1483	.841 452	.146 1678	.973	.856 8630	.192 221	.139 0391
.924	.835 5826	.848 297	.146 0217	.974	.857 2973	.199 417	.138 9001
1.925	0.836 0169	6.855 149	0.145 8758	1.975	0.857 7316	7.206 620	0.138 7613
.926	.836 4512	.862 007	.145 7300	.976	.858 1659	.213 830	.138 6226
.927	.836 8855	.868 873	.145 5843	.977	.858 6002	.221 047	.138 4841
.928	.837 3198	.875 745	.145 4388	.978	.859 0345	.228 272	.138 3457
.929	.837 7541	.882 624	.145 2934	.979	.859 4688	.235 504	.138 2074
1.930	0.838 1884	6.889 510	0.145 1482	1.980	0.859 9031	7.242 743	0.138 0692
.931	.838 6226	.896 403	.145 0031	.981	.860 3374	.249 989	.137 9312
.932	.839 0569	.903 303	.144 8582	.982	.860 7717	.257 243	.137 7934
.933	.839 4912	.910 210	.144 7134	.983	.861 2060	.264 504	.137 6557
.934	.839 9255	.917 123	.144 5688	.984	.861 6403	.271 772	.137 5181
1.935	0.840 3598	6.924 044	0.144 4243	1.985	0.862 0745	7.279 047	0.137 3806
.936	.840 7941	.930 972	.144 2799	.986	.862 5088	.286 330	.137 2433
.937	.841 2284	.937 906	.144 1357	.987	.862 9431	.293 620	.137 1061
.938	.841 6627	.944 847	.143 9916	.988	.863 3774	.300 917	.136 9691
.939	.842 0970	.951 796	.143 8477	.989	.863 8117	.308 222	.136 8322
1.940	0.842 5313	6.958 751	0.143 7039	1.990	0.864 2460	7.315 534	0.136 6954
.941	.842 9656	.965 713	.143 5603	.991	.864 6803	.322 853	.136 5588
.942	.843 3999	.972 682	.143 4168	.992	.865 1146	.330 179	.136 4223
.943	.843 8342	.979 659	.143 2735	.993	.865 5489	.337 513	.136 2860
.944	.844 2685	.986 642	.143 1303	.994	.865 9832	.344 854	.136 1497
1.945	0.844 7028	6.993 632	0.142 9872	1.995	0.866 4175	7.352 203	0.136 0137
.946	.845 1371	7.000 629	.142 8443	.996	.866 8518	.359 559	.135 8777
.947	.845 5714	.007 633	.142 7015	.997	.867 2861	.366 922	.135 7419
.948	.846 0057	.014 644	.142 5589	.998	.867 7204	.374 293	.135 6062
.949	.846 4399	.021 662	.142 4164	.999	.868 1547	.381 671	.135 4707
1.950	0.846 8742	7.028 688	0.142 2741	2.000	0.868 5890	7.389 056	0.135 3353
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.000	0.868 5890	7.389 056	0.135 3353	2.050	0.890 3037	7.767 901	0.128 7349
.001	.869 0233	.396 449	.135 2000	.051	.890 7380	.775 673	.128 6062
.002	.869 4576	.403 849	.135 0649	.052	.891 1723	.783 452	.128 4777
.003	.869 8918	.411 257	.134 9299	.053	.891 6066	.791 240	.128 3493
.004	.870 3261	.418 672	.134 7950	.054	.892 0409	.799 035	.128 2210
2.005	0.870 7604	7.426 094	0.134 6603	2.055	0.892 4752	7.806 838	0.128 0928
.006	.871 1947	.433 524	.134 5257	.056	.892 9095	.814 649	.127 9648
.007	.871 6290	.440 961	.134 3912	.057	.893 3437	.822 467	.127 8369
.008	.872 0633	.448 406	.134 2569	.058	.893 7780	.830 294	.127 7091
.009	.872 4976	.455 858	.134 1227	.059	.894 2123	.838 128	.127 5815
2.010	0.872 9319	7.463 317	0.133 9887	2.060	0.894 6466	7.845 970	0.127 4540
.011	.873 3662	.470 784	.133 8548	.061	.895 0809	.853 820	.127 3266
.012	.873 8005	.478 259	.133 7210	.062	.895 5152	.861 677	.127 1993
.013	.874 2348	.485 741	.133 5873	.063	.895 9495	.869 543	.127 0722
.014	.874 6691	.493 230	.133 4538	.064	.896 3838	.877 417	.126 9452
2.015	0.875 1034	7.500 727	0.133 3204	2.065	0.896 8181	7.885 298	0.126 8183
.016	.875 5377	.508 232	.133 1871	.066	.897 2524	.893 187	.126 6915
.017	.875 9720	.515 744	.133 0540	.067	.897 6867	.901 084	.126 5649
.018	.876 4063	.523 263	.132 9210	.068	.898 1210	.908 989	.126 4384
.019	.876 8406	.530 790	.132 7882	.069	.898 5553	.916 902	.126 3120
2.020	0.877 2749	7.538 325	0.132 6555	2.070	0.898 9896	7.924 823	0.126 1858
.021	.877 7091	.545 867	.132 5229	.071	.899 4239	.932 752	.126 0597
.022	.878 1434	.553 417	.132 3904	.072	.899 8582	.940 689	.125 9337
.023	.878 5777	.560 974	.132 2581	.073	.900 2925	.948 633	.125 8078
.024	.879 0120	.568 539	.132 1259	.074	.900 7268	.956 586	.125 6820
2.025	0.879 4463	7.576 111	0.131 9938	2.075	0.901 1610	7.964 546	0.125 5564
.026	.879 8806	.583 691	.131 8619	.076	.901 5953	.972 515	.125 4309
.027	.880 3149	.591 278	.131 7301	.077	.902 0296	.980 491	.125 3056
.028	.880 7492	.598 873	.131 5985	.078	.902 4639	.988 476	.125 1803
.029	.881 1835	.606 476	.131 4669	.079	.902 8982	.996 468	.125 0552
2.030	0.881 6178	7.614 086	0.131 3355	2.080	0.903 3325	8.004 469	0.124 9302
.031	.882 0521	.621 704	.131 2043	.081	.903 7668	.012 477	.124 8053
.032	.882 4864	.629 330	.131 0731	.082	.904 2011	.020 494	.124 6806
.033	.882 9207	.636 963	.130 9421	.083	.904 6354	.028 518	.124 5560
.034	.883 3550	.644 604	.130 8112	.084	.905 0697	.036 551	.124 4315
2.035	0.883 7893	7.652 252	0.130 6805	2.085	0.905 5040	8.044 591	0.124 3071
.036	.884 2236	.659 908	.130 5499	.086	.905 9383	.052 640	.124 1829
.037	.884 6579	.667 572	.130 4194	.087	.906 3726	.060 697	.124 0588
.038	.885 0922	.675 243	.130 2890	.088	.906 8069	.068 761	.123 9348
.039	.885 5264	.682 922	.130 1588	.089	.907 2412	.076 834	.123 8109
2.040	0.885 9607	7.690 609	0.130 0287	2.090	0.907 6755	8.084 915	0.123 6871
.041	.886 3950	.698 304	.129 8987	.091	.908 1098	.093 004	.123 5635
.042	.886 8293	.706 006	.129 7689	.092	.908 5441	.101 101	.123 4400
.043	.887 2636	.713 716	.129 6392	.093	.908 9784	.109 206	.123 3166
.044	.887 6979	.721 433	.129 5096	.094	.909 4126	.117 320	.123 1934
2.045	0.888 1322	7.729 159	0.129 3802	2.095	0.909 8469	8.125 441	0.123 0702
.046	.888 5665	.736 892	.129 2509	.096	.910 2812	.133 570	.122 9472
.047	.889 0008	.744 632	.129 1217	.097	.910 7155	.141 708	.122 8243
.048	.889 4351	.752 381	.128 9926	.098	.911 1498	.149 854	.122 7016
.049	.889 8694	.760 137	.128 8637	.099	.911 5841	.158 008	.122 5789
2.050	0.890 3037	7.767 901	0.128 7349	2.100	0.912 0184	8.166 170	0.122 4564
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.100	0.912 0184	8.166 170	0.122 4564	2.150	0.933 7331	8.584 858	0.116 4842
.101	.912 4527	.174 340	.122 3340	.151	.934 1674	.593 448	.116 3677
.102	.912 8870	.182 519	.122 2118	.152	.934 6017	.602 045	.116 2514
.103	.913 3213	.190 705	.122 0896	.153	.935 0360	.610 652	.116 1352
.104	.913 7556	.198 900	.121 9676	.154	.935 4703	.619 267	.116 0192
2.105	0.914 1899	8.207 103	0.121 8457	2.155	0.935 9046	8.627 890	0.115 9032
.106	.914 6242	.215 314	.121 7239	.156	.936 3389	.636 522	.115 7873
.107	.915 0585	.223 534	.121 6022	.157	.936 7732	.645 163	.115 6716
.108	.915 4928	.231 761	.121 4807	.158	.937 2075	.653 813	.115 5560
.109	.915 9271	.239 997	.121 3593	.159	.937 6418	.662 471	.115 4405
2.110	0.916 3614	8.248 241	0.121 2380	2.160	0.938 0761	8.671 138	0.115 3251
.111	.916 7957	.256 494	.121 1168	.161	.938 5104	.679 813	.115 2099
.112	.917 2299	.264 754	.120 9957	.162	.938 9447	.688 497	.115 0947
.113	.917 6642	.273 023	.120 8748	.163	.939 3790	.697 190	.114 9797
.114	.918 0985	.281 300	.120 7540	.164	.939 8133	.705 892	.114 8647
2.115	0.918 5328	8.289 586	0.120 6333	2.165	0.940 2476	8.714 602	0.114 7499
.116	.918 9671	.297 879	.120 5127	.166	.940 6818	.723 321	.114 6352
.117	.919 4014	.306 182	.120 3923	.167	.941 1161	.732 049	.114 5207
.118	.919 8357	.314 492	.120 2719	.168	.941 5504	.740 785	.114 4062
.119	.920 2700	.322 811	.120 1517	.169	.941 9847	.749 530	.114 2919
2.120	0.920 7043	8.331 137	0.120 0316	2.170	0.942 4190	8.758 284	0.114 1776
.121	.921 1386	.339 473	.119 9117	.171	.942 8533	.767 047	.114 0635
.122	.921 5729	.347 816	.119 7918	.172	.943 2876	.775 818	.113 9495
.123	.922 0072	.356 168	.119 6721	.173	.943 7219	.784 598	.113 8356
.124	.922 4415	.364 529	.119 5525	.174	.944 1562	.793 387	.113 7218
2.125	0.922 8758	8.372 897	0.119 4330	2.175	0.944 5905	8.802 185	0.113 6082
.126	.923 3101	.381 275	.119 3136	.176	.945 0248	.810 992	.113 4946
.127	.923 7444	.389 660	.119 1943	.177	.945 4591	.819 807	.113 3812
.128	.924 1787	.398 054	.119 0752	.178	.945 8934	.828 631	.113 2678
.129	.924 6130	.406 456	.118 9562	.179	.946 3277	.837 464	.113 1546
2.130	0.925 0472	8.414 867	0.118 8373	2.180	0.946 7620	8.846 306	0.113 0415
.131	.925 4815	.423 286	.118 7185	.181	.947 1963	.855 157	.112 9285
.132	.925 9158	.431 713	.118 5999	.182	.947 6306	.864 017	.112 8157
.133	.926 3501	.440 149	.118 4813	.183	.948 0649	.872 885	.112 7029
.134	.926 7844	.448 594	.118 3629	.184	.948 4991	.881 762	.112 5903
2.135	0.927 2187	8.457 047	0.118 2446	2.185	0.948 9334	8.890 649	0.112 4777
.136	.927 6530	.465 508	.118 1264	.186	.949 3677	.899 544	.112 3653
.137	.928 0873	.473 978	.118 0083	.187	.949 8020	.908 448	.112 2530
.138	.928 5216	.482 456	.117 8904	.188	.950 2363	.917 361	.112 1408
.139	.928 9559	.490 942	.117 7726	.189	.950 6706	.926 282	.112 0287
2.140	0.929 3902	8.499 438	0.117 6548	2.190	0.951 1049	8.935 213	0.111 9167
.141	.929 8245	.507 941	.117 5372	.191	.951 5392	.944 153	.111 8049
.142	.930 2588	.516 454	.117 4198	.192	.951 9735	.953 101	.111 6931
.143	.930 6931	.524 974	.117 3024	.193	.952 4078	.962 059	.111 5815
.144	.931 1274	.533 503	.117 1852	.194	.952 8421	.971 026	.111 4700
2.145	0.931 5617	8.542 041	0.117 0680	2.195	0.953 2764	8.980 001	0.111 3586
.146	.931 9960	.550 588	.116 9510	.196	.953 7107	.988 986	.111 2473
.147	.932 4303	.559 142	.116 8341	.197	.954 1450	.997 979	.111 1361
.148	.932 8645	.567 706	.116 7174	.198	.954 5793	9.006 982	.111 0250
.149	.933 2988	.576 278	.116 6007	.199	.955 0136	.015 993	.110 9140
2.150	0.933 7331	8.584 858	0.116 4842	2.200	0.955 4479	9.025 013	0.110 8032
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.200	0.955 4479	9.025 013	0.110 8032	2.250	0.977 1626	9.487 736	0.105 3992
.201	.955 8822	.034 043	.110 6924	.251	.977 5969	.497 228	.105 2939
.202	.956 3164	.043 082	.110 5818	.252	.978 0312	.506 730	.105 1886
.203	.956 7507	.052 129	.110 4712	.253	.978 4655	.516 242	.105 0835
.204	.957 1850	.061 186	.110 3608	.254	.978 8998	.525 763	.104 9785
2.205	0.957 6193	9.070 252	0.110 2505	2.255	0.979 3341	9.535 293	0.104 8735
.206	.958 0536	.079 326	.110 1403	.256	.979 7684	.544 833	.104 7687
.207	.958 4879	.088 410	.110 0302	.257	.980 2026	.554 383	.104 6640
.208	.958 9222	.097 503	.109 9203	.258	.980 6369	.563 942	.104 5594
.209	.959 3565	.106 605	.109 8104	.259	.981 0712	.573 511	.104 4549
2.210	0.959 7908	9.115 716	0.109 7006	2.260	0.981 5055	9.583 089	0.104 3505
.211	.960 2251	.124 837	.109 5910	.261	.981 9398	.592 677	.104 2462
.212	.960 6594	.133 966	.109 4815	.262	.982 3741	.602 275	.104 1420
.213	.961 0937	.143 105	.109 3720	.263	.982 8084	.611 882	.104 0379
.214	.961 5280	.152 252	.109 2627	.264	.983 2427	.621 498	.103 9339
2.215	0.961 9623	9.161 409	0.109 1535	2.265	0.983 6770	9.631 125	0.103 8300
.216	.962 3966	.170 575	.109 0444	.266	.984 1113	.640 761	.103 7263
.217	.962 8309	.179 750	.108 9354	.267	.984 5456	.650 406	.103 6226
.218	.963 2652	.188 935	.108 8265	.268	.984 9799	.660 061	.103 5190
.219	.963 6995	.198 128	.108 7178	.269	.985 4142	.669 726	.103 4155
2.220	0.964 1337	9.207 331	0.108 6091	2.270	0.985 8485	9.679 401	0.103 3122
.221	.964 5680	.216 543	.108 5006	.271	.986 2828	.689 085	.103 2089
.222	.965 0023	.225 764	.108 3921	.272	.986 7171	.698 779	.103 1058
.223	.965 4366	.234 994	.108 2838	.273	.987 1514	.708 483	.103 0027
.224	.965 8709	.244 234	.108 1755	.274	.987 5857	.718 196	.102 8998
2.225	0.966 3052	9.253 483	0.108 0674	2.275	0.988 0199	9.727 919	0.102 7969
.226	.966 7395	.262 741	.107 9594	.276	.988 4542	.737 652	.102 6942
.227	.967 1738	.272 008	.107 8515	.277	.988 8885	.747 394	.102 5915
.228	.967 6081	.281 285	.107 7437	.278	.989 3228	.757 147	.102 4890
.229	.968 0424	.290 571	.107 6360	.279	.989 7571	.766 909	.102 3865
2.230	0.968 4767	9.299 866	0.107 5284	2.280	0.990 1914	9.776 680	0.102 2842
.231	.968 9110	.309 171	.107 4210	.281	.990 6257	.786 462	.102 1820
.232	.969 3453	.318 484	.107 3136	.282	.991 0600	.796 253	.102 0798
.233	.969 7796	.327 808	.107 2063	.283	.991 4943	.806 054	.101 9778
.234	.970 2139	.337 140	.107 0992	.284	.991 9286	.815 865	.101 8759
2.235	0.970 6482	9.346 482	0.106 9921	2.285	0.992 3629	9.825 686	0.101 7741
.236	.971 0825	.355 833	.106 8852	.286	.992 7972	.835 517	.101 6723
.237	.971 5168	.365 194	.106 7784	.287	.993 2315	.845 357	.101 5707
.238	.971 9511	.374 563	.106 6716	.288	.993 6658	.855 208	.101 4692
.239	.972 3853	.383 943	.106 5650	.289	.994 1001	.865 068	.101 3678
2.240	0.972 8196	9.393 331	0.106 4585	2.290	0.994 5344	9.874 938	0.101 2665
.241	.973 2539	.402 729	.106 3521	.291	.994 9687	.884 818	.101 1652
.242	.973 6882	.412 137	.106 2458	.292	.995 4030	.894 707	.101 0641
.243	.974 1225	.421 554	.106 1396	.293	.995 8372	.904 607	.100 9631
.244	.974 5568	.430 980	.106 0335	.294	.996 2715	.914 517	.100 8622
2.245	0.974 9911	9.440 416	0.105 9275	2.295	0.996 7058	9.924 436	0.100 7614
.246	.975 4254	.449 861	.105 8217	.296	.997 1401	.934 365	.100 6607
.247	.975 8597	.459 315	.105 7159	.297	.997 5744	.944 305	.100 5601
.248	.976 2940	.468 779	.105 6102	.298	.998 0087	.954 254	.100 4596
.249	.976 7283	.478 253	.105 5047	.299	.998 4430	.964 213	.100 3592
2.250	0.977 1626	9.487 736	0.105 3992	2.300	0.998 8773	9.974 182	0.100 2588
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.300	0.998 8773	9.974 182	0.100 2588	2.350	1.020 5920	10.485 570	0.095 3692
.301	.999 3116	.984 162	.100 1586	.351	.021 0263	.496 061	.095 2738
.302	.999 7459	.994 151	.100 0585	.352	.021 4606	.506 562	.095 1786
.303	1.000 1802	10.004 150	.099 9585	.353	.021 8949	.517 074	.095 0835
.304	.000 6145	.014 159	.099 8586	.354	.022 3292	.527 596	.094 9884
2.305	1.001 0488	10.024 178	0.099 7588	2.355	1.022 7635	10.538 129	0.094 8935
.306	.001 4831	.034 207	.099 6591	.356	.023 1978	.548 672	.094 7987
.307	.001 9174	.044 247	.099 5595	.357	.023 6321	.559 226	.094 7039
.308	.002 3517	.054 296	.099 4600	.358	.024 0664	.569 791	.094 6093
.309	.002 7860	.064 355	.099 3606	.359	.024 5007	.580 366	.094 5147
2.310	1.003 2203	10.074 425	0.099 2613	2.360	1.024 9350	10.590 951	0.094 4202
.311	.003 6545	.084 504	.099 1620	.361	.025 3693	.601 548	.094 3259
.312	.004 0888	.094 594	.099 0629	.362	.025 8036	.612 155	.094 2316
.313	.004 5231	.104 693	.098 9639	.363	.026 2379	.622 772	.094 1374
.314	.004 9574	.114 803	.098 8650	.364	.026 6722	.633 400	.094 0433
2.315	1.005 3917	10.124 923	0.098 7662	2.365	1.027 1064	10.644 039	0.093 9493
.316	.005 8260	.135 053	.098 6675	.366	.027 5407	.654 688	.093 8554
.317	.006 2603	.145 193	.098 5688	.367	.027 9750	.665 348	.093 7616
.318	.006 6946	.155 343	.098 4703	.368	.028 4093	.676 019	.093 6679
.319	.007 1289	.165 504	.098 3719	.369	.028 8436	.686 700	.093 5743
2.320	1.007 5632	10.175 674	0.098 2736	2.370	1.029 2779	10.697 392	0.093 4807
.321	.007 9975	.185 855	.098 1754	.371	.029 7122	.708 095	.093 3873
.322	.008 4318	.196 046	.098 0772	.372	.030 1465	.718 808	.093 2940
.323	.008 8661	[illegible]	[illegible]	.373	.030 5808	.729 533	.093 2007
.324	.009 3004	[illegible]	[illegible]	.374	.031 0151	.740 268	.093 1076
2.325	1.009 7347	10.226 680	0.097 7834	2.375	1.031 4494	[illegible]	[illegible]
.326	.010 1690	.236 912	.097 6857	.376	.031 8837	.761 [illegible]	[illegible]
.327	.010 6033	.247 154	.097 5881	.377	.032 3180	.772 537	.092 8286
.328	.011 0376	.257 406	.097 4905	.378	.032 7523	.783 315	.092 7359
.329	.011 4718	.267 669	.097 [illegible]	.379	.033 1866	.794 103	.092 6432
2.330	1.011 9061	10.277 942	0.097 2957	2.380	1.033 6209	10.804 903	0.092 5506
.331	.012 3404	.288 225	.097 1985	.381	.034 0552	.815 713	.092 4581
.332	.012 7747	.298 518	.097 1014	.382	.034 4895	.826 534	.092 3657
.333	.013 2090	.308 822	.097 0043	.383	.034 9238	.837 366	.092 2733
.334	.013 6433	.319 136	.096 9073	.384	.035 3580	.848 209	.092 1811
2.335	1.014 0776	10.329 460	0.096 8105	2.385	1.035 7923	10.859 063	0.092 0890
.336	.014 5119	.339 795	.096 7137	.386	.036 2266	.869 927	.091 9969
.337	.014 9462	.350 140	.096 6171	.387	.036 6609	.880 803	.091 9050
.338	.015 3805	.360 495	.096 5205	.388	.037 0952	.891 689	.091 8131
.339	.015 8148	.370 861	.096 4240	.389	.037 5295	.902 586	.091 7214
2.340	1.016 2491	10.381 237	0.096 3276	2.390	1.037 9638	10.913 494	0.091 6297
.341	.016 6834	.391 623	.096 2314	.391	.038 3981	.924 413	.091 5381
.342	.017 1177	.402 020	.096 1352	.392	.038 8324	.935 343	.091 4466
.343	.017 5520	.412 427	.096 0391	.393	.039 2667	.946 284	.091 3552
.344	.017 9863	.422 845	.095 9431	.394	.039 7010	.957 235	.091 2639
2.345	1.018 4206	10.433 273	0.095 8472	2.395	1.040 1353	10.968 198	0.091 1727
.346	.018 8549	.443 711	.095 7514	.396	.040 5696	.979 172	.091 0816
.347	.019 2891	.454 160	.095 6557	.397	.041 0039	.990 156	.090 9905
.348	.019 7234	.464 620	.095 5601	.398	.041 4382	11.001 152	.090 8996
.349	.020 1577	.475 089	.095 4646	.399	.041 8725	.012 159	.090 8087
2.350	1.020 5920	10.485 570	0.095 3692	2.400	1.042 3068	11.023 176	0.090 7180
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.400	1.042 3068	11.023 176	0.090 7180	2.450	1.064 0215	11.588 347	0.086 2936
.401	.042 7411	.034 205	.090 6273	.451	.064 4558	.599 941	.086 2073
.402	.043 1753	.045 245	.090 5367	.452	.064 8901	.611 547	.086 1212
.403	.043 6096	.056 296	.090 4462	.453	.065 3244	.623 164	.086 0351
.404	.044 0439	.067 357	.090 3558	.454	.065 7587	.634 793	.085 9491
2.405	1.044 4782	11.078 430	0.090 2655	2.455	1.066 1930	11.646 434	0.085 8632
.406	.044 9125	.089 514	.090 1753	.456	.066 6272	.658 086	.085 7774
.407	.045 3468	.100 609	.090 0851	.457	.067 0615	.669 750	.085 6916
.408	.045 7811	.111 715	.089 9951	.458	.067 4958	.681 425	.085 6060
.409	.046 2154	.122 833	.089 9052	.459	.067 9301	.693 113	.085 5204
2.410	1.046 6497	11.133 961	0.089 8153	2.460	1.068 3644	11.704 812	0.085 4350
.411	.047 0840	.145 101	.089 7255	.461	.068 7987	.716 522	.085 3496
.412	.047 5183	.156 251	.089 6358	.462	.069 2330	.728 245	.085 2643
.413	.047 9526	.167 413	.089 5463	.463	.069 6673	.739 979	.085 1790
.414	.048 3869	.178 586	.089 4568	.464	.070 1016	.751 725	.085 0939
2.415	1.048 8212	11.189 770	0.089 3673	2.465	1.070 5359	11.763 482	0.085 0088
.416	.049 2555	.200 966	.089 2780	.466	.070 9702	.775 252	.084 9239
.417	.049 6898	.212 172	.089 1888	.467	.071 4045	.787 033	.084 8390
.418	.050 1241	.223 390	.089 0996	.468	.071 8388	.798 826	.084 7542
.419	.050 5584	.234 619	.089 0106	.469	.072 2731	.810 630	.084 6695
2.420	1.050 9926	11.245 859	0.088 9216	2.470	1.072 7074	11.822 447	0.084 5849
.421	.051 4269	.257 111	.088 8327	.471	.073 1417	.834 275	.084 5003
.422	.051 8612	.268 374	.088 7440	.472	.073 5760	.846 115	.084 4159
.423	.052 2955	.279 648	.088 6553	.473	.074 0103	.857 967	.084 3315
.424	.052 7298	.290 933	.088 5666	.474	.074 4445	.869 831	.084 2472
2.425	1.053 1641	11.302 229	0.088 4781	2.475	1.074 8788	11.881 707	0.084 1630
.426	.053 5984	.313 537	.088 3897	.476	.075 3131	.893 595	.084 0789
.427	.054 0327	.324 857	.088 3013	.477	.075 7474	.905 494	.083 9948
.428	.054 4670	.336 187	.088 2131	.478	.076 1817	.917 406	.083 9109
.429	.054 9013	.347 529	.088 1249	.479	.076 6160	.929 329	.083 8270
2.430	1.055 3356	11.358 882	0.088 0368	2.480	1.077 0503	11.941 264	0.083 7432
.431	.055 7699	.370 247	.087 9488	.481	.077 4846	.953 212	.083 6595
.432	.056 2042	.381 623	.087 8609	.482	.077 9189	.965 171	.083 5759
.433	.056 6385	.393 010	.087 7731	.483	.078 3532	.977 142	.083 4924
.434	.057 0728	.404 409	.087 6854	.484	.078 7875	.989 125	.083 4089
2.435	1.057 5071	11.415 819	0.087 5977	2.485	1.079 2218	12.001 120	0.083 3256
.436	.057 9414	.427 240	.087 5102	.486	.079 6561	.013 127	.083 2423
.437	.058 3757	.438 673	.087 4227	.487	.080 0904	.025 147	.083 1591
.438	.058 8099	.450 118	.087 3353	.488	.080 5247	.037 178	.083 0760
.439	.059 2442	.461 573	.087 2481	.489	.080 9590	.049 221	.082 9929
2.440	1.059 6785	11.473 041	0.087 1609	2.490	1.081 3933	12.061 276	0.082 9100
.441	.060 1128	.484 520	.087 0737	.491	.081 8276	.073 343	.082 8271
.442	.060 5471	.496 010	.086 9867	.492	.082 2618	.085 423	.082 7443
.443	.060 9814	.507 512	.086 8998	.493	.082 6961	.097 514	.082 6616
.444	.061 4157	.519 025	.086 8129	.494	.083 1304	.109 618	.082 5790
2.445	1.061 8500	11.530 550	0.086 7261	2.495	1.083 5647	12.121 734	0.082 4965
.446	.062 2843	.542 086	.086 6395	.496	.083 9990	.133 861	.082 4140
.447	.062 7186	.553 634	.086 5529	.497	.084 4333	.146 001	.082 3316
.448	.063 1529	.565 193	.086 4663	.498	.084 8676	.158 153	.082 2493
.449	.063 5872	.576 764	.086 3799	.499	.085 3019	.170 318	.082 1671
2.450	1.064 0215	11.588 347	0.086 2936	2.500	1.085 7362	12.182 494	0.082 0850
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.500	1.085 7362	12.182 494	0.082 0850	2.550	1.107 4509	12.807 104	0.078 0817
.501	.086 1705	.194 683	.082 0030	.551	.107 8852	.819 917	.078 0036
.502	.086 6048	.206 883	.081 9210	.552	.108 3195	.832 744	.077 9257
.503	.087 0391	.219 096	.081 8391	.553	.108 7538	.845 583	.077 8478
.504	.087 4734	.231 322	.081 7573	.554	.109 1881	.858 435	.077 7700
2.505	1.087 9077	12.243 559	0.081 6756	2.555	1.109 6224	12.871 300	0.077 6922
.506	.088 3420	.255 809	.081 5940	.556	.110 0567	.884 177	.077 6146
.507	.088 7763	.268 071	.081 5124	.557	.110 4910	.897 068	.077 5370
.508	.089 2106	.280 345	.081 4309	.558	.110 9253	.909 972	.077 4595
.509	.089 6449	.292 631	.081 3495	.559	.111 3596	.922 888	.077 3821
2.510	1.090 0791	12.304 930	0.081 2682	2.560	1.111 7939	12.935 817	0.077 3047
.511	.090 5134	.317 241	.081 1870	.561	.112 2282	.948 760	.077 2275
.512	.090 9477	.329 565	.081 1059	.562	.112 6625	.961 715	.077 1503
.513	.091 3820	.341 900	.081 0248	.563	.113 0968	.974 683	.077 0732
.514	.091 8163	.354 248	.080 9438	.564	.113 5311	.987 664	.076 9961
2.515	1.092 2506	12.366 609	0 080 8629	2.565	1.113 9653	13.000 658	0.076 9192
.516	.092 6849	.378 982	.080 7821	.566	.114 3996	.013 666	.076 8423
.517	.093 1192	.391 367	.080 7013	.567	.114 8339	.026 686	.076 7655
.518	.093 5535	.403 764	.080 6207	.568	.115 2682	.039 719	.076 6888
.519	.093 9878	.416 174	.080 5401	.569	.115 7025	.052 765	.076 6121
2.520	1.094 4221	12.428 597	0.080 4596	2.570	1.116 1368	13.065 824	0.076 5355
.521	.094 8564	.441 032	.080 3792	.571	.116 5711	.078 897	.076 4590
.522	.095 2907	.453 479	.080 2988	.572	.117 0054	.091 982	.076 3826
.523	.095 7250	.465 938	.080 2186	.573	.117 4397	.105 081	.076 3063
.524	.096 1593	.478 411	.080 1384	.574	.117 8740	.118 192	.076 2300
2.525	1.096 5936	12.490 895	0.080 0583	2.575	1.118 3083	13.131 317	0.076 1538
.526	.097 0279	.503 392	.079 9783	.576	.118 7426	.144 455	.076 0777
.527	.097 4622	.515 902	.079 8984	.577	.119 1769	.157 606	.076 0017
.528	.097 8965	.528 424	.079 8185	.578	.119 6112	.170 770	.075 9257
.529	.098 3307	.540 959	.079 7387	.579	.120 0455	.183 948	.075 8498
2.530	1.098 7650	12.553 506	0.079 6590	2.580	1.120 4798	13.197 138	0.075 7740
.531	.099 1993	.566 066	.079 5794	.581	.120 9141	.210 342	.075 6983
.532	.099 6336	.578 638	.079 4999	.582	.121 3484	.223 559	.075 6226
.533	.100 0679	.591 223	.079 4204	.583	.121 7826	.236 789	.075 5470
.534	.100 5022	.603 821	.079 3410	.584	.122 2169	.250 032	.075 4715
2.535	1.100 9365	12.616 431	0.079 2617	2.585	1.122 6512	13.263 289	0.075 3961
.536	.101 3708	.629 054	.079 1825	.586	.123 0855	.276 559	.075 3207
.537	.101 8051	.641 689	.079 1034	.587	.123 5198	.289 842	.075 2454
.538	.102 2394	.654 337	.079 0243	.588	.123 9541	.303 139	.075 1702
.539	.102 6737	.666 998	.078 9453	.589	.124 3884	.316 449	.075 0951
2.540	1.103 1080	12.679 671	0.078 8664	2.590	1.124 8227	13.329 772	0.075 0200
.541	.103 5423	.692 357	.078 7876	.591	.125 2570	.343 108	.074 9451
.542	.103 9766	.705 056	.078 7088	.592	.125 6913	.356 458	.074 8701
.543	.104 4109	.717 767	.078 6302	.593	.126 1256	.369 821	.074 7953
.544	.104 8452	.730 491	.078 5516	.594	.126 5599	.383 198	.074 7206
2.545	1.105 2795	12.743 228	0.078 4731	2.595	1.126 9942	13.396 587	0.074 6459
.546	.105 7138	.755 978	.078 3946	.596	.127 4285	.409 991	.074 5713
.547	.106 1480	.768 740	.078 3163	.597	.127 8628	.423 407	.074 4967
.548	.106 5823	.781 515	.078 2380	.598	.128 2971	.436 838	.074 4223
.549	.107 0166	.794 303	.078 1598	.599	.128 7314	.450 281	.074 3479
2.550	1.107 4509	12.807 104	0.078 0817	2.600	1.129 1657	13.463 738	0.074 2736
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.600	1.129 1657	13.463 738	0.074 2736	2.650	1.150 8804	14.154 039	0.070 6512
.601	.129 5999	.477 208	.074 1993	.651	.151 3147	.168 200	.070 5806
.602	.130 0342	.490 692	.074 1252	.652	.151 7490	.182 375	.070 5101
.603	.130 4685	.504 190	.074 0511	.653	.152 1833	.196 565	.070 4396
.604	.130 9028	.517 701	.073 9771	.654	.152 6176	.210 768	.070 3692
2.605	1.131 3371	13.531 225	0.073 9031	2.655	1.153 0518	14.224 986	0.070 2988
.606	.131 7714	.544 763	.073 8293	.656	.153 4861	.239 218	.070 2286
.607	.132 2057	.558 315	.073 7555	.657	.153 9204	.253 464	.070 1584
.608	.132 6400	.571 880	.073 6818	.658	.154 3547	.267 725	.070 0883
.609	.133 0743	.585 459	.073 6081	.659	.154 7890	.282 000	.070 0182
2.610	1.133 5086	13.599 051	0.073 5345	2.660	1.155 2233	14.296 289	0.069 9482
.611	.133 9429	.612 657	.073 4610	.661	.155 6576	.310 593	.069 8783
.612	.134 3772	.626 276	.073 3876	.662	.156 0919	.324 910	.069 8085
.613	.134 8115	.639 909	.073 3143	.663	.156 5262	.339 242	.069 7387
.614	.135 2458	.653 556	.073 2410	.664	.156 9605	.353 589	.069 6690
2.615	1.135 6801	13.667 216	0.073 1678	2.665	1.157 3948	14.367 950	0.069 5994
.616	.136 1144	.680 890	.073 0947	.666	.157 8291	.382 325	.069 5298
.617	.136 5487	.694 578	.073 0216	.667	.158 2634	.396 714	.069 4603
.618	.136 9830	.708 280	.072 9486	.668	.158 6977	.411 118	.069 3909
.619	.137 4172	.721 995	.072 8757	.669	.159 1320	.425 536	.069 3215
2.620	1.137 8515	13.735 724	0.072 8029	2.670	1.159 5663	14.439 969	0.069 2522
.621	.138 2858	.749 466	.072 7301	.671	.160 0006	.454 416	.069 1830
.622	.138 7201	.763 222	.072 6574	.672	.160 4349	.468 878	.069 1139
.623	.139 1544	.776 993	.072 5848	.673	.160 8692	.483 354	.069 0448
.624	.139 5887	.790 776	.072 5122	.674	.161 3034	.497 845	.068 9758
2.625	1.140 0230	13.804 574	0.072 4398	2.675	1.161 7377	14.512 350	0.068 9068
.626	.140 4572	.818 386	.072 3674	.676	.162 1720	.526 869	.068 8380
.627	.140 8916	.832 211	.072 2950	.677	.162 6063	.541 404	.068 7692
.628	.141 3259	.846 050	.072 2228	.678	.163 0406	.555 952	.068 7004
.629	.141 7602	.859 903	.072 1506	.679	.163 4749	.570 515	.068 6318
2.630	1.142 1945	13.873 770	0.072 0785	2.680	1.163 9092	14.585 093	0.068 5632
.631	.142 6288	.887 651	.072 0064	.681	.164 3435	.599 686	.068 4946
.632	.143 0631	.901 545	.071 9344	.682	.164 7778	.614 293	.068 4262
.633	.143 4974	.915 454	.071 8626	.683	.165 2121	.628 914	.068 3578
.634	.143 9317	.929 376	.071 7907	.684	.165 6464	.643 550	.068 2894
2.635	1.144 3660	13.943 312	0.071 7190	2.685	1.166 0807	14.658 201	0.068 2212
.636	.144 8003	.957 263	.071 6473	.686	.166 5150	.672 867	.068 1530
.637	.145 2345	.971 227	.071 5757	.687	.166 9493	.687 547	.068 0849
.638	.145 6688	.985 205	.071 5041	.688	.167 3836	.702 242	.068 0168
.639	.146 1031	.999 197	.071 4327	.689	.167 8179	.716 952	.067 9489
2.640	1.146 5374	14.013 204	0.071 3613	2.690	1.168 2522	14.731 676	0.067 8809
.641	.146 9717	.027 224	.071 2899	.691	.168 6865	.746 415	.067 8131
.642	.147 4060	.041 258	.071 2187	.692	.169 1207	.761 169	.067 7453
.643	.147 8403	.055 306	.071 1475	.693	.169 5550	.775 937	.067 6776
.644	.148 2746	.069 369	.071 0764	.694	.169 9893	.790 721	.067 6100
2.645	1.148 7089	14.083 445	0.071 0054	2.695	1.170 4236	14.805 519	0.067 5424
.646	.149 1432	.097 536	.070 9344	.696	.170 8579	.820 332	.067 4749
.647	.149 5775	.111 640	.070 8635	.697	.171 2922	.835 159	.067 4074
.648	.150 0118	.125 759	.070 7927	.698	.171 7265	.850 002	.067 3401
.649	.150 4461	.139 892	.070 7219	.699	.172 1608	.864 859	.067 2728
2.650	1.150 8804	14.154 039	0.070 6512	2.700	1.172 5951	14.879 732	0.067 2055
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.700	1.172 5951	14.879 732	0.067 2055	2.750	1.194 3098	15.642 632	0.063 9279
.701	.173 0294	.894 619	.067 1383	.751	.194 7441	.658 282	.063 8640
.702	.173 4637	.909 521	.067 0712	.752	.195 1784	.673 948	.063 8001
.703	.173 8980	.924 438	.067 0042	.753	.195 6127	.689 630	.063 7364
.704	.174 3323	.939 370	.066 9372	.754	.196 0470	.705 328	.063 6727
2.705	1.174 7666	14.954 317	0.066 8703	2.755	1.196 4813	15.721 041	0.063 6090
.706	.175 2009	.969 278	.066 8035	.756	.196 9156	.736 770	.063 5454
.707	.175 6352	.984 255	.066 7367	.757	.197 3499	.752 514	.063 4819
.708	.176 0695	.999 247	.066 6700	.758	.197 7842	.768 275	.063 4185
.709	.176 5038	15.014 254	.066 6039	.759	.198 2185	.784 051	.063 3551
2.710	1.176 9380	15.029 275	0.066 5368	2.760	1.198 6528	15.799 843	0.063 2918
.711	.177 3723	.044 312	.066 4703	.761	.199 0871	.815 651	.063 2285
.712	.177 8066	.059 364	.066 4039	.762	.199 5214	.831 474	.063 1653
.713	.178 2409	.074 431	.066 3375	.763	.199 9557	.847 314	.063 1022
.714	.178 6752	.089 513	.066 2712	.764	.200 3899	.863 169	.063 0391
2.715	1.179 1095	15.104 610	0.066 2050	2.765	1.200 8242	15.879 040	0.062 9761
.716	.179 5438	.119 722	.066 1388	.766	.201 2585	.894 927	.062 9132
.717	.179 9781	.134 850	.066 0727	.767	.201 6928	.910 830	.062 8503
.718	.180 4124	.149 992	.066 0066	.768	.202 1271	.926 749	.062 7875
.719	.180 8467	.165 149	.065 9407	.769	.202 5614	.942 683	.062 7247
2.720	1.181 2810	15.180 322	0.065 8748	2.770	1.202 9957	15.958 634	0.062 6620
.721	.181 7153	.195 510	.065 8089	.771	.203 4300	.974 601	.062 5994
.722	.182 1496	.210 713	.065 7431	.772	.203 8643	.990 583	.062 5368
.723	.182 5839	.225 932	.065 6774	.773	.204 2986	16.006 582	.062 4743
.724	.183 0182	.241 165	.065 6118	.774	.204 7329	.022 596	.062 4119
2.725	1.183 4525	15.256 414	0.065 5462	2.775	1.205 1672	16.038 627	0.062 3495
.726	.183 8868	.271 678	.065 4807	.776	.205 6015	.054 674	.062 2872
.727	.184 3211	.286 957	.065 4152	.777	.206 0358	.070 736	.062 2249
.728	.184 7553	.302 252	.065 3499	.778	.206 4701	.086 815	.062 1627
.729	.185 1896	.317 562	.065 2845	.779	.206 9044	.102 910	.062 1006
2.730	1.185 6239	15.332 887	0.065 2193	2.780	1.207 3387	16.119 021	0.062 0385
.731	.186 0582	.348 228	.065 1541	.781	.207 7730	.135 148	.061 9765
.732	.186 4925	.363 583	.065 0890	.782	.208 2072	.151 291	.061 9146
.733	.186 9268	.378 955	.065 0239	.783	.208 6415	.167 451	.061 8527
.734	.187 3611	.394 341	.064 9589	.784	.209 0758	.183 626	.061 7908
2.735	1.187 7954	15.409 743	0.064 8940	2.785	1.209 5101	16.199 818	0.061 7291
.736	.188 2297	.425 161	.064 8291	.786	.209 9444	.216 026	.061 6674
.737	.188 6640	.440 594	.064 7643	.787	.210 3787	.232 250	.061 6058
.738	.189 0983	.456 042	.064 6996	.788	.210 8130	.248 490	.061 5442
.739	.189 5326	.471 506	.064 6349	.789	.211 2473	.264 747	.061 4827
2.740	1.189 9669	15.486 985	0.064 5703	2.790	1.211 6816	16.281 020	0.061 4212
.741	.190 4012	.502 480	.064 5058	.791	.212 1159	.297 309	.061 3598
.742	.190 8355	.517 990	.064 4413	.792	.212 5502	.313 614	.061 2985
.743	.191 2698	.533 516	.064 3769	.793	.212 9845	.329 936	.061 2372
.744	.191 7041	.549 057	.064 3126	.794	.213 4188	.346 274	.061 1760
2.745	1.192 1384	15.564 614	0.064 2483	2.795	1.213 8531	16.362 629	0.061 1149
.746	.192 5726	.580 186	.064 1841	.796	.214 2874	.379 000	.061 0538
.747	.193 0069	.595 774	.064 1199	.797	.214 7217	.395 387	.060 9928
.748	.193 4412	.611 378	.064 0558	.798	.215 1560	.411 790	.060 9318
.749	.193 8755	.626 997	.063 9918	.799	.215 5903	.428 210	.060 8709
2.750	1.194 3098	15.642 632	0.063 9279	2.800	1.216 0245	16.444 647	0.060 8101
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.800	1.216 0245	16.444 647	0.060 8101	2.850	1.237 7393	17.287 782	0.057 8443
.801	.216 4588	.461 100	.060 7493	.851	.238 1736	.305 078	.057 7865
.802	.216 8931	.477 569	.060 6886	.852	.238 6079	.322 392	.057 7287
.803	.217 3274	.494 055	.060 6279	.853	.239 0422	.339 723	.057 6710
.804	.217 7617	.510 557	.060 5673	.854	.239 4765	.357 071	.057 6134
2.805	1.218 1960	16.527 076	0.060 5068	2.855	1.239 9107	17.374 437	0.057 5558
.806	.218 6303	.543 611	.060 4463	.856	.240 3450	.391 820	.057 4983
.807	.219 0646	.560 163	.060 3859	.857	.240 7793	.409 221	.057 4408
.808	.219 4989	.576 732	.060 3255	.858	.241 2136	.426 639	.057 3834
.809	.219 9332	.593 317	.060 2652	.859	.241 6479	.444 074	.057 3261
2.810	1.220 3675	16.609 918	0.060 2050	2.860	1.242 0822	17.461 527	0.057 2688
.811	.220 8018	.626 536	.060 1448	.861	.242 5165	.478 997	.057 2115
.812	.221 2361	.643 171	.060 0847	.862	.242 9508	.496 485	.057 1543
.813	.221 6704	.659 823	.060 0246	.863	.243 3851	.513 990	.057 0972
.814	.222 1047	.676 491	.059 9647	.864	.243 8194	.531 513	.057 0401
2.815	1.222 5390	16.693 176	0.059 9047	2.865	1.244 2537	17.549 053	0.056 9831
.816	.222 9733	.709 877	.059 8448	.866	.244 6880	.566 611	.056 9262
.817	.223 4076	.726 596	.059 7850	.867	.245 1223	.584 186	.056 8693
.818	.223 8418	.743 331	.059 7253	.868	.245 5566	.601 779	.056 8124
.819	.224 2761	.760 082	.059 6656	.869	.245 9909	.619 390	.056 7557
2.820	1.224 7104	16.776 851	0.059 6059	2.870	1.246 4252	17.637 018	0.056 6989
.821	.225 1447	.793 636	.059 5464	.871	.246 8595	.654 664	.056 6423
.822	.225 5790	.810 438	.059 4868	.872	.247 2938	.672 328	.056 5856
.823	.226 0133	.827 257	.059 4274	.873	.247 7280	.690 009	.056 5291
.824	.226 4476	.844 092	.059 3680	.874	.248 1623	.707 708	.056 4726
2.825	1.226 8819	16.860 945	0.059 3087	2.875	1.248 5966	17.725 424	0.056 4161
.826	.227 3162	.877 814	.059 2494	.876	.249 0309	.743 158	.056 3598
.827	.227 7505	.894 701	.059 1902	.877	.249 4652	.760 910	.056 3034
.828	.228 1848	.911 604	.059 1310	.878	.249 8995	.778 680	.056 2471
.829	.228 6191	.928 524	.059 0719	.879	.250 3338	.796 468	.056 1909
2.830	1.229 0534	16.945 461	0.059 0129	2.880	1.250 7681	17.814 273	0.056 1348
.831	.229 4877	.962 415	.058 9539	.881	.251 2024	.832 096	.056 0787
.832	.229 9220	.979 386	.058 8949	.882	.251 6367	.849 937	.056 0226
.833	.230 3563	.996 374	.058 8361	.883	.252 0710	.867 796	.055 9666
.834	.230 7906	17.013 378	.058 7773	.884	.252 5053	.885 673	.055 9107
2.835	1.231 2249	17.030 400	0.058 7185	2.885	1.252 9396	17.903 568	0.055 8548
.836	.231 6592	.047 439	.058 6598	.886	.253 3739	.921 480	.055 7990
.837	.232 0934	.064 495	.058 6012	.887	.253 8082	.939 411	.055 7432
.838	.232 5277	.081 568	.058 5426	.888	.254 2425	.957 359	.055 6875
.839	.232 9620	.098 658	.058 4841	.889	.254 6768	.975 325	.055 6318
2.840	1.233 3963	17.115 766	0.058 4257	2.890	1.255 1111	17.993 310	0.055 5762
.841	.233 8306	.132 890	.058 3673	.891	.255 5453	18.011 312	.055 5207
.842	.234 2649	.150 031	.058 3089	.892	.255 9796	.029 332	.055 4652
.843	.234 6992	.167 190	.058 2507	.893	.256 4139	.047 371	.055 4097
.844	.235 1335	.184 366	.058 1924	.894	.256 8482	.065 427	.055 3544
2.845	1.235 5678	17.201 559	0.058 1343	2.895	1.257 2825	18.083 501	0.055 2990
.846	.236 0021	.218 769	.058 0762	.896	.257 7168	.101 594	.055 2438
.847	.236 4364	.235 996	.058 0181	.897	.258 1511	.119 705	.055 1885
.848	.236 8707	.253 241	.057 9601	.898	.258 5854	.137 833	.055 1334
.849	.237 3050	.270 503	.057 9022	.899	.259 0197	.155 980	.055 0783
2.850	1.237 7393	17.287 782	0.057 8443	2.900	1.259 4540	18.174 145	0.055 0232
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
2.900	1.259 4540	18.174 145	0.055 0232	2.950	1.281 1687	19.105 954	0.052 3397
.901	.259 8883	.192 329	.054 9682	.951	.281 6030	.125 069	.052 2874
.902	.260 3226	.210 530	.054 9133	.952	.282 0373	.144 204	.052 2351
.903	.260 7569	.228 750	.054 8584	.953	.282 4716	.163 358	.052 1829
.904	.261 1912	.246 988	.054 8036	.954	.282 9059	.182 531	.052 1308
2.905	1.261 6255	18.265 244	0.054 7488	2.955	1.283 3402	19.201 723	0.052 0787
.906	.262 0598	.283 518	.054 6941	.956	.283 7745	.220 934	.052 0266
.907	.262 4941	.301 811	.054 6394	.957	.284 2088	.240 165	.051 9746
.908	.262 9284	.320 122	.054 5848	.958	.284 6431	.259 414	.051 9227
.909	.263 3626	.338 451	.051 5302	.959	.285 0774	.278 683	.051 8708
2.910	1.263 7969	18.356 799	0.054 4757	2.960	1.285 5117	19.297 972	0.051 8189
.911	.264 2312	.375 165	.054 4213	.961	.285 9460	.317 279	.051 7671
.912	.264 6655	.393 549	.054 3669	.962	.286 3803	.336 606	.051 7154
.913	.265 0998	.411 952	.054 3125	.963	.286 8145	.355 953	.051 6637
.914	.265 5341	.430 373	.054 2583	.964	.287 2488	.375 318	.051 6121
2.915	1.265 9684	18.448 812	0.054 2040	2.965	1.287 6831	19.394 703	0.051 5605
.916	.266 4027	.467 270	.054 1499	.966	.288 1174	.414 108	.051 5089
.917	.266 8370	.485 747	.054 0957	.967	.288 5517	.433 531	.051 4575
.918	.267 2713	.504 242	.054 0417	.968	.288 9860	.452 975	.051 4060
.919	.267 7056	.522 755	.053 9876	.969	.289 4203	.472 437	.051 3546
2.920	1.268 1399	18.541 287	0.053 9337	2.970	1.289 8546	19.491 920	0.051 3033
.921	.268 5742	.559 838	.053 8798	.971	.290 2889	.511 421	.051 2520
.922	.269 0085	.578 407	.053 8259	.972	.290 7232	.530 942	.051 2008
.923	.269 4428	.596 995	.053 7721	.973	.291 1575	.550 483	.051 1496
.924	.269 8771	.615 601	.053 7184	.974	.291 5918	.570 043	.051 0985
2.925	1.270 3114	18.634 226	0.053 6647	2.975	1.292 0261	19.589 623	0.051 0474
.926	.270 7457	.652 870	.053 6111	.976	.292 4604	.609 223	.050 9964
.927	.271 1799	.671 532	.053 5575	.977	.292 8947	.628 842	.050 9454
.928	.271 6142	.690 213	.053 5039	.978	.293 3290	.648 480	.050 8945
.929	.272 0485	.708 912	.053 4505	.979	.293 7633	.668 139	.050 8437
2.930	1.272 4828	18.727 631	0.053 3970	2.980	1.294 1976	19.687 817	0.050 7928
.931	.272 9171	.746 368	.053 3437	.981	.294 6319	.707 514	.050 7421
.932	.273 3514	.765 123	.053 2904	.982	.295 0661	.727 232	.050 6913
.933	.273 7857	.783 898	.053 2371	.983	.295 5004	.746 969	.050 6407
.934	.274 2200	.802 691	.053 1839	.984	.295 9347	.766 726	.050 5901
2.935	1.274 6543	18.821 503	0.053 1307	2.985	1.296 3690	19.786 502	0.050 5395
.936	.275 0886	.840 334	.053 0776	.986	.296 8033	.806 299	.050 4890
.937	.275 5229	.859 184	.053 0246	.987	.297 2376	.826 115	.050 4385
.938	.275 9572	.878 052	.052 9716	.988	.297 6719	.845 951	.050 3881
.939	.276 3915	.896 940	.052 9186	.989	.298 1062	.865 807	.050 3377
2.940	1.276 8258	18.915 846	0.052 8657	2.990	1.298 5405	19.885 682	0.050 2874
.941	.277 2601	.934 772	.052 8129	.991	.298 9748	.905 578	.050 2372
.942	.277 6944	.953 716	.052 7601	.992	.299 4091	.925 494	.050 1870
.943	.278 1287	.972 679	.052 7074	.993	.299 8434	.945 429	.050 1368
.944	.278 5630	.991 661	.052 6547	.994	.300 2777	.965 385	.050 0867
2.945	1.278 9972	19.010 662	0.052 6021	2.995	1.300 7120	19.985 360	0.050 0366
.946	.279 4315	.029 683	.052 5495	.996	.301 1463	20.005 355	.049 9866
.947	.279 8658	.048 722	.052 4970	.997	.301 5806	.025 371	.049 9367
.948	.280 3001	.067 780	.052 4445	.998	.302 0149	.045 406	.049 8867
.949	.280 7344	.086 857	.052 3921	.999	.302 4492	.065 461	.049 8369
2.950	1.281 1687	19.105 954	0.052 3397	3.000	1.302 8834	20.085 537	0.049 7871
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
3.00	1.302 8834	20.085 537	0.049 7871	3.50	1.520 0307	33.115 452	0.030 1974
.01	.307 2264	.287 400	.049 2917	.51	.524 3736	.448 268	.029 8969
.02	.311 5693	.491 292	.048 8012	.52	.528 7166	.784 429	.029 5994
.03	.315 9123	.697 233	.048 3156	.53	.533 0595	34.123 968	.029 3049
.04	.320 2552	.905 243	.047 8349	.54	.537 4025	.466 919	.029 0133
3.05	1.324 5982	21.115 344	0.047 3589	3.55	1.541 7454	34.813 318	0.028 7246
.06	.328 9411	.327 557	.046 8877	.56	.546 0884	35.163 197	.028 4388
.07	.333 2841	.541 903	.046 4212	.57	.550 4313	.516 593	.028 1559
.08	.337 6270	.758 402	.045 9593	.58	.554 7742	.873 541	.027 8757
.09	.341 9699	.977 078	.045 5020	.59	.559 1172	36.234 076	.027 5983
3.10	1.346 3129	22.197 951	0.045 0492	3.60	1.563 4601	36.598 235	0.027 3237
.11	.350 6558	.421 044	.044 6010	.61	.567 8031	.966 053	.027 0518
.12	.354 9988	.646 380	.044 1572	.62	.572 1460	37.337 568	.026 7827
.13	.359 3417	.873 980	.043 7178	.63	.576 4890	.712 817	.026 5162
.14	.363 6847	23.103 867	.043 2828	.64	.580 8319	38.091 837	.026 2523
3.15	1.368 0276	23.336 065	0.042 8521	3.65	1.585 1749	38.474 666	0.025 9911
.16	.372 3706	.570 596	.042 4257	.66	.589 5178	.861 343	.025 7325
.17	.376 7135	.807 484	.042 0036	.67	.593 8607	39.251 906	.025 4765
.18	.381 0565	24.046 754	.041 5857	.68	.598 2037	.646 394	.025 2230
.19	.385 3994	.288 427	.041 1719	.69	.602 5466	40.044 847	.024 9720
3.20	1.389 7423	24.532 530	0.040 7622	3.70	1.606 8896	40.447 304	0.024 7235
.21	.394 0853	.779 086	.040 3566	.71	.611 2325	.853 807	.024 4775
.22	.398 4282	25.028 120	.039 9551	.72	.615 5755	41.264 394	.024 2340
.23	.402 7712	.279 657	.039 5575	.73	.619 9184	.679 108	.023 9928
.24	.407 1141	.533 722	.039 1639	.74	.624 2614	42.097 990	.023 7541
3.25	1.411 4571	25.790 340	0.038 7742	3.75	1.628 6043	42.521 082	0.023 5177
.26	.415 8000	26.049 537	.038 3884	.76	.632 9473	.948 426	.023 2837
.27	.420 1430	.311 339	.038 0064	.77	.637 2902	43.380 065	.023 0521
.28	.424 4859	.575 773	.037 6283	.78	.641 6331	.816 042	.022 8227
.29	.428 8288	.842 864	.037 2538	.79	.645 9761	44.256 400	.022 5956
3.30	1.433 1718	27.112 639	0.036 8832	3.80	1.650 3190	44.701 185	0.022 3708
.31	.437 5147	.385 125	.036 5162	.81	.654 6620	45.150 439	.022 1482
.32	.441 8577	.660 351	.036 1528	.82	.659 0049	.604 208	.021 9278
.33	.446 2006	.938 342	.035 7931	.83	.663 3479	46.062 538	.021 7096
.34	.450 5436	28.219 127	.035 4370	.84	.667 6908	.525 474	.021 4936
3.35	1.454 8865	28.502 734	0.035 0844	3.85	1.672 0338	46.993 063	0.021 2797
.36	.459 2295	.789 191	.034 7353	.86	.676 3767	47.465 351	.021 0680
.37	.463 5724	29.078 527	.034 3896	.87	.680 7196	.942 386	.020 8584
.38	.467 9153	.370 771	.034 0475	.88	.685 0626	48.424 215	.020 6508
.39	.472 2583	.665 952	.033 7087	.89	.689 4055	.910 887	.020 4453
3.40	1.476 6012	29.964 100	0.033 3733	3.90	1.693 7485	49.402 449	0.020 2419
.41	.480 9442	30.265 244	.033 0412	.91	.698 0914	.898 952	.020 0405
.42	.485 2871	.569 415	.032 7124	.92	.702 4344	50.400 445	.019 8411
.43	.489 6301	.876 643	.032 3869	.93	.706 7773	.906 978	.019 6437
.44	.493 9730	31.186 958	.032 0647	.94	.711 1203	51.418 601	.019 4482
3.45	1.498 3160	31.500 392	0.031 7456	3.95	1.715 4632	51.935 367	0.019 2547
.46	.502 6589	.816 977	.031 4298	.96	.719 8061	52.457 326	.019 0631
.47	.507 0019	32.136 743	.031 1170	.97	.724 1491	.984 531	.018 8734
.48	.511 3448	.459 722	.030 8074	.98	.728 4920	53.517 034	.018 6856
.49	.515 6877	.785 948	.030 5009	.99	.732 8350	54.054 889	.018 4997
3.50	1.520 0307	33.115 452	0.030 1974	4.00	1.737 1779	54.598 150	0.018 3156
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
4.00	1.737 1779	54.598 150	0.018 3156	4.50	1.954 3252	90.017 131	0.011 1090
.01	.741 5209	55.146 871	.018 1334	.51	.958 6681	.921 819	.010 9985
.02	.745 8638	.701 106	.017 9530	.52	.963 0111	91.835 598	.010 8890
.03	.750 2068	56.260 911	.017 7743	.53	.967 3540	92.758 561	.010 7807
.04	.754 5497	.826 343	.017 5975	.54	.971 6969	93.690 800	.010 6734
4.05	1.758 8927	57.397 457	0.017 4224	4.55	1.976 0399	94.632 408	0.010 5672
.06	.763 2356	.974 311	.017 2490	.56	.980 3828	95.583 480	.010 4621
.07	.767 5785	58.556 963	.017 0774	.57	.984 7258	96.544 110	.010 3580
.08	.771 9215	59.145 470	.016 9075	.58	.989 0687	97.514 394	.010 2549
.09	.776 2644	.739 892	.016 7392	.59	.993 4117	98.494 430	.010 1529
4.10	1.780 6074	60.340 288	0.016 5727	4.60	1.997 7546	99.484 316	0.010 0518
.11	.784 9503	.946 718	.016 4078	.61	2.002 0976	100.484 150	.009 9518
.12	.789 2933	61.559 242	.016 2445	.62	.006 4405	101.494 032	.009 8528
.13	.793 6362	62.177 923	.016 0829	.63	.010 7835	102.514 064	.009 7548
.14	.797 9792	.802 821	.015 9229	.64	.015 1264	103.544 348	.009 6577
4.15	1.802 3221	63.434 000	0.015 7644	4.65	2.019 4693	104.584 986	0.009 5616
.16	.806 6650	64.071 523	.015 6076	.66	.023 8123	105.636 082	.009 4665
.17	.811 0080	.715 452	.015 4523	.67	.028 1552	106.697 743	.009 3723
.18	.815 3509	65.365 853	.015 2985	.68	.032 4982	107.770 073	.009 2790
.19	.819 6939	66.022 791	.015 1463	.69	.036 8411	108.853 180	.009 1867
4.20	1.824 0368	66.686 331	0.014 9956	4.70	2.041 1841	109.947 173	0.009 0953
.21	.828 3798	67.356 540	.014 8464	.71	.045 5270	111.052 160	.009 0048
.22	.832 7227	68.033 484	.014 6986	.72	.049 8700	112.168 253	.008 9152
.23	.837 0657	.717 232	.014 5524	.73	.054 2129	113.295 563	.008 8265
.24	.841 4086	69.407 852	.014 4076	.74	.058 5558	114.434 202	.008 7386
4.25	1.845 7515	70.105 412	0.014 2642	4.75	2.062 8988	115.584 285	0.008 6517
.26	.850 0945	.809 983	.014 1223	.76	.067 2417	116.745 926	.008 5656
.27	.854 4374	71.521 636	.013 9818	.77	.071 5847	117.919 242	.008 4804
.28	.858 7804	72.240 440	.013 8427	.78	.075 9276	119.104 351	.008 3960
.29	.863 1233	.966 468	.013 7049	.79	.080 2706	120.301 369	.008 3125
4.30	1.867 4663	73.699 794	0.013 5686	4.80	2.084 6135	121.510 418	0.008 2297
.31	.871 8092	74.440 489	.013 4335	.81	.088 9565	122.731 618	.008 1479
.32	.876 1522	75.188 628	.013 2999	.82	.093 2994	123.965 091	.008 0668
.33	.880 4951	.944 287	.013 1675	.83	.097 6423	125.210 961	.007 9865
.34	.884 8381	76.707 539	.013 0365	.84	.101 9853	126.469 352	.007 9071
4.35	1.889 1810	77.478 463	0.012 9068	4.85	2.106 3282	127.740 390	0.007 8284
.36	.893 5239	78.257 134	.012 7784	.86	.110 6712	129.024 203	.007 7505
.37	.897 8669	79.043 632	.012 6512	.87	.115 0141	130.320 918	.007 6734
.38	.902 2098	.838 033	.012 5254	.88	.119 3571	131.630 665	.007 5970
.39	.906 5528	80.640 419	.012 4007	.89	.123 7000	132.953 575	.007 5214
4.40	1.910 8957	81.450 869	0.012 2773	4.90	2.128 0430	134.289 780	0.007 4466
.41	.915 2387	82.269 464	.012 1552	.91	.132 3859	135.639 415	.007 3725
.42	.919 5816	83.096 285	.012 0342	.92	.136 7289	137.002 613	.007 2991
.43	.923 9246	.931 417	.011 9145	.93	.141 0718	138.379 513	.007 2265
.44	.928 2675	84.774 942	.011 7959	.94	.145 4147	139.770 250	.007 1546
4.45	1.932 6104	85.626 944	0.011 6786	4.95	2.149 7577	141.174 964	0.007 0834
.46	.936 9534	86.487 509	.011 5624	.96	.154 1006	142.593 796	.007 0129
.47	.941 2963	87.356 723	.011 4473	.97	.158 4436	144.026 888	.006 9431
.48	.945 6393	88.234 673	.011 3334	.98	.162 7865	145.474 382	.006 8741
.49	.949 9822	89.121 446	.011 2206	.99	.167 1295	146.936 424	.006 8057
4.50	1.954 3252	90.017 131	0.011 1090	5.00	2.171 4724	148.413 159	0.006 7379
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}	u	$\log_{10}(e^u)$	e^u	e^{-u}
5.00	2.171 4724	148.413 159	0.006 7379	5.50	2.388 6197	244.691 932	0.004 0868
.01	.175 8154	149.904 736	.006 6709	.51	.392 9626	247.151 127	.004 0461
.02	.180 1583	151.411 304	.006 6045	.52	.397 3055	249.635 037	.004 0058
.03	.184 5012	152.933 013	.006 5388	.53	.401 6485	252.143 911	.003 9660
.04	.188 8442	154.470 015	.006 4737	.54	.405 9914	254.677 999	.003 9265
5.05	2.193 1871	156.022 464	0.006 4093	5.55	2.410 3344	257.237 556	0.003 8875
.06	.197 5301	157.590 516	.006 3456	.56	.414 6773	259.822 836	.003 8488
.07	.201 8730	159.174 327	.006 2824	.57	.419 0203	262.434 099	.003 8105
.08	.206 2160	160.774 056	.006 2199	.58	.423 3632	265.071 606	.003 7726
.09	.210 5589	162.389 862	.006 1580	.59	.427 7062	267.735 620	.003 7350
5.10	2.214 9019	164.021 907	0.006 0967	5.60	2.432 0491	270.426 407	0.003 6979
.11	.219 2448	165.670 355	.006 0361	.61	.436 3920	273.144 238	.003 6611
.12	.223 5877	167.335 369	.005 9760	.62	.440 7350	275.889 383	.003 6246
.13	.227 9307	169.017 118	.005 9166	.63	.445 0779	278.662 117	.003 5886
.14	.232 2736	170.715 768	.005 8577	.64	.449 4209	281.462 718	.003 5529
5.15	2.236 6166	172.431 490	0.005 7994	5.65	2.453 7638	284.291 466	0.003 5175
.16	.240 9595	174.164 455	.005 7417	.66	.458 1068	287.148 642	.003 4825
.17	.245 3025	175.914 837	.005 6846	.67	.462 4497	290.034 534	.003 4479
.18	.249 6454	177.682 811	.005 6280	.68	.466 7927	292.949 430	.003 4136
.19	.253 9884	179.468 553	.005 5720	.69	.471 1356	295.893 620	.003 3796
5.20	2.258 3313	181.272 242	0.005 5166	5.70	2.475 4785	298.867 401	0.003 3460
.21	.262 6743	183.094 058	.005 4617	.71	.479 8215	301.871 068	.003 3127
.22	.267 0172	184.934 184	.005 4073	.72	.484 1644	304.904 923	.003 2797
.23	.271 3601	186.792 804	.005 3535	.73	.488 5074	307.969 268	.003 2471
.24	.275 7031	188.670 103	.005 3003	.74	.492 8503	311.064 411	.003 2148
5.25	2.280 0460	190.566 269	0.005 2475	5.75	2.497 1933	314.190 660	0.003 1828
.26	.284 3890	192.481 491	.005 1953	.76	.501 5362	317.348 329	.003 1511
.27	.288 7319	194.415 963	.005 1436	77	.505 8792	320.537 733	.003 1198
.28	.293 0749	196.369 875	.005 0924	.78	.510 2221	323.759 190	.003 0887
.29	.297 4178	198.343 426	.005 0418	.79	.514 5651	327.013 024	.003 0580
5.30	2.301 7608	200.336 810	0.004 9916	5.80	2.518 9080	330.299 560	0.003 0276
.31	.306 1037	202.350 228	.004 9419	.81	.523 2509	333.619 126	.002 9974
.32	.310 4466	204.383 882	.004 8928	.82	.527 5939	336.972 054	.002 9676
.33	.314 7896	206.437 974	.004 8441	.83	.531 9368	340.358 679	.002 9381
.34	.319 1325	208.512 710	.004 7959	.84	.536 2798	343.779 341	.002 9088
5.35	2.323 4755	210.608 298	0.004 7482	5.85	2.540 6227	347.234 381	0.002 8799
.36	.327 8184	212.724 946	.004 7009	.86	.544 9657	350.724 144	.002 8512
.37	.332 1614	214.862 868	.004 6541	.87	.549 3086	354.248 980	.002 8229
.38	.336 5043	217.022 275	.004 6078	.88	.553 6516	357.809 242	.002 7948
.39	.340 8473	219.203 386	.004 5620	.89	.557 9945	361.405 284	.002 7670
5.40	2.345 1902	221.406 416	0.004 5166	5.90	2.562 3374	365.037 468	0.002 7394
.41	.349 5331	223.631 588	.004 4716	.91	.566 6804	368.706 156	.002 7122
.42	.353 8761	225.879 122	.004 4271	.92	.571 0233	372.411 714	.002 6852
.43	.358 2190	228.149 245	.004 3831	.93	.575 3663	376.154 514	.002 6585
.44	.362 5620	230.442 183	.004 3395	.94	.579 7092	379.934 930	.002 6320
5.45	2.366 9049	232.758 166	0.004 2963	5.95	2.584 0522	383.753 339	0.002 6058
.46	.371 2479	235.097 424	.004 2536	.96	.588 3951	387.610 124	.002 5799
.47	.375 5908	237.460 193	.004 2112	.97	.592 7381	391.505 671	.002 5542
.48	.379 9338	239.846 707	.004 1693	.98	.597 0810	395.440 368	.002 5288
.49	.384 2767	242.257 207	.004 1278	.99	.601 4239	399.414 610	.002 5037
5.50	2.388 6197	244.691 932	0.004 0868	6.00	2.605 7669	403.428 794	0.002 4788
$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}	$\log_e(e^u)$	$\log_{10}(e^u)$	e^u	e^{-u}

u	$\log_{10}(e^u)$	e^u	e^{-u}
1	.43429 44819	2.71 828 183	0.367 879 441
2	.86858 89638	7.38 905 610	0.135 335 283
3	1.30288 34457	20.0 855 369	(1) 497 870 684
4	1.73717 79276	54.5 981 500	(1) 183 156 389
5	2.17147 24095	148. 413 159	(2) 673 794 700
6	2.60576 68914	403. 428 793	(2) 247 875 218
7	3.04006 13733	109 6.63 316	(3) 911 881 966
8	3.47435 58552	298 0.95 799	(3) 335 462 628
9	3.90865 03371	810 3.08 393	(3) 123 409 804
10	4.34294 48190	220 26.4 658	(4) 453 999 298
11	4.77723 93009	598 74.1 417	(4) 167 017 008
12	5.21153 37828	162 754. 791	(5) 614 421 235
13	5.64582 82647	442 413. 392	(5) 226 032 941
14	6.08012 27466	120 260 4.28	(6) 831 528 719
15	6.51441 72285	326 901 7.37	(6) 305 902 321
16	6.94871 17105	888 611 0.52	(6) 112 535 175
17	7.38300 61924	241 549 52.8	(7) 413 993 772
18	7.81730 06743	656 599 69.1	(7) 152 299 797
19	8.25159 51562	178 482 301.	(8) 560 279 644
20	8.68588 96381	485 165 195.	(8) 206 115 362
21	9.12018 41200	131 881 573 [1]	(9) 758 256 043
22	9.55447 86019	358 491 285 [1]	(9) 278 946 809
23	9.98877 30838	974 480 345 [1]	(9) 102 618 796
24	10.42306 75657	264 891 221 [2]	(10) 377 513 454
25	10.85736 20476	720 048 993 [2]	(10) 138 879 439
26	11.29165 65295	195 729 609 [3]	(11) 510 908 903
27	11.72595 10114	532 048 241 [3]	(11) 187 952 882
28	12.16024 54933	144 625 707 [4]	(12) 691 440 011
29	12.59453 99752	393 133 430 [4]	(12) 254 366 565
30	13.02883 44571	106 864 746 [5]	(13) 935 762 297
31	13.46312 89390	290 488 497 [5]	(13) 344 247 711
32	13.89742 34209	789 629 602 [5]	(13) 126 641 656
33	14.33171 79028	214 643 580 [6]	(14) 465 888 615
34	14.76601 23847	583 461 743 [6]	(14) 171 390 843
35	15.20030 68666	158 601 345 [7]	(15) 630 511 676
36	15.63460 13485	431 123 155 [7]	(15) 231 952 283
37	16.06889 58304	117 191 424 [8]	(16) 853 304 763
38	16.50319 03123	318 559 318 [8]	(16) 313 913 279
39	16.93748 47942	865 934 004 [8]	(16) 115 482 242
40	17.37177 92761	235 385 267 [9]	(17) 424 835 426
41	17.80607 37580	639 843 493 [9]	(17) 156 288 219
42	18.24036 82399	173 927 494 [10]	(18) 574 952 227
43	18.67466 27218	472 783 947 [10]	(18) 211 513 104
44	19.10895 72037	128 516 001 [11]	(19) 778 113 224
45	19.54325 16856	349 342 711 [11]	(19) 286 251 858
46	19.97754 61675	949 611 942 [11]	(19) 105 306 174
47	20.41184 06495	258 131 289 [12]	(20) 387 399 763
48	20.84613 51314	701 673 591 [12]	(20) 142 516 408
49	21.28042 96133	190 734 657 [13]	(21) 524 288 566
50	21.71472 40952	518 470 553 [13]	(21) 192 874 985

The numbers in square brackets denote the numbers of figures between the last figure given and the decimal point; for example, the first nine figures of e^{50} are 518470553, and there are 13 additional figures before the decimal point is reached. The numbers in parentheses denote the numbers of ciphers between the decimal point and the first significant figure; for example, in e^{-50} there are 21 ciphers between the decimal point and the figures 192874985.

u	$log_{10}(e^u)$	e^u	e^{-u}
51	22.14901 85771	140 934 908 [14]	(22) 709 547 416
52	22.58331 30590	383 100 800 [14]	(22) 261 027 907
53	23.01760 75409	104 137 594 [15]	(23) 960 268 005
54	23.45190 20228	283 075 330 [15]	(23) 353 262 857
55	23.88619 65047	769 478 527 [15]	(23) 129 958 143
56	24.32049 09866	209 165 950 [16]	(24) 478 089 288
57	24.75478 54685	568 572 000 [16]	(24) 175 879 220
58	25.18907 99504	154 553 894 [17]	(25) 647 023 493
59	25.62337 44323	420 121 040 [17]	(25) 238 026 641
60	26.05766 89142	114 200 739 [18]	(26) 875 651 076
61	26.49196 33961	310 429 794 [18]	(26) 322 134 029
62	26.92625 78780	843 835 667 [18]	(26) 118 506 487
63	27.36055 23599	229 378 316 [19]	(27) 435 961 000
64	27.79484 68418	623 514 908 [19]	(27) 160 381 089
65	28.22914 13237	169 488 924 [20]	(28) 590 009 054
66	28.66343 58056	460 718 663 [20]	(28) 217 052 201
67	29.09773 02875	125 236 317 [21]	(29) 798 490 425
68	29.53202 47694	340 427 605 [21]	(29) 293 748 211
69	29.96631 92513	925 378 172 [21]	(29) 108 063 928
70	30.40061 37332	251 543 867 [22]	(30) 397 544 974
71	30.83490 82151	683 767 123 [22]	(30) 146 248 623
72	31.26920 26970	185 867 175 [23]	(31) 538 018 616
73	31.70349 71789	505 239 363 [23]	(31) 197 925 988
74	32.13779 16608	137 338 298 [24]	(32) 728 129 018
75	32.57208 61427	373 324 200 [24]	(32) 267 863 696
76	33.00638 06246	101 480 039 [25]	(33) 985 415 469
77	33.44067 51066	275 851 346 [25]	(33) 362 514 092
78	33.87496 95885	749 841 700 [25]	(33) 133 361 482
79	34.30926 40704	203 828 107 [26]	(34) 490 609 473
80	34.74355 85523	554 062 238 [26]	(34) 180 485 139
81	35.17785 30342	150 609 731 [27]	(35) 663 967 720
82	35.61214 75161	409 399 696 [27]	(35) 244 260 074
83	36.04644 19980	111 286 376 [28]	(36) 898 582 594
84	36.48073 64799	302 507 732 [28]	(36) 330 570 063
85	36.91503 09618	822 301 271 [28]	(36) 121 609 930
86	37.34932 54437	223 524 660 [29]	(37) 447 377 931
87	37.78361 99256	607 603 023 [29]	(37) 164 581 143
88	38.21791 44075	165 163 626 [30]	(38) 605 460 189
89	38.65220 88894	448 961 282 [30]	(38) 222 736 356
90	39.08650 33713	122 040 329 [31]	(39) 819 401 262
91	39.52079 78532	331 740 010 [31]	(39) 301 440 879
92	39.95509 23351	901 762 841 [31]	(39) 110 893 902
93	40.38938 68170	245 124 554 [32]	(40) 407 955 867
94	40.82368 12989	666 317 622 [32]	(40) 150 078 576
95	41.25797 57808	181 123 908 [33]	(41) 552 108 228
96	41.69227 02627	492 345 829 [33]	(41) 203 109 266
97	42.12656 47446	133 833 472 [34]	(42) 747 197 234
98	42.56085 92265	363 797 095 [34]	(42) 274 878 501
99	42.99515 37084	988 903 032 [34]	(42) 101 122 149
100	43.42944 81903	268 811 714 [35]	(43) 372 007 598

The numbers in square brackets denote the numbers of figures between the last figure given and the decimal point; for example, the first nine figures of e^{50} are 518470553, and there are 13 additional figures before the decimal point is reached. The numbers in parentheses denote the numbers of ciphers between the decimal point and the first significant figure; for example, in e^{-50} there are 21 ciphers between the decimal point and the figures 192874985.

Auxiliary Table for Interpolation of $Log_{10}(e^u)$.

$(p = n \times 43429\ 44819\ .\ .\ .)$

n	p	n	p	n	p	n	p	n	p
0.000	000	0.050	2171	0.100	4343	0.150	6514	0.200	8686
.001	043	.051	2215	.101	4386	.151	6558	.201	8729
.002	087	.052	2258	.102	4430	.152	6601	.202	8773
.003	130	.053	2302	.103	4473	.153	6645	.203	8816
.004	174	.054	2345	.104	4517	.154	6688	.204	8860
0.005	217	0.055	2389	0.105	4560	0.155	6732	0.205	8903
.006	261	.056	2432	.106	4604	.156	6775	.206	8946
.007	304	.057	2475	.107	4647	.157	6818	.207	8990
.008	347	.058	2519	.108	4690	.158	6862	.208	9033
.009	391	.059	2562	.109	4734	.159	6905	.209	9077
0.010	434	0.060	2606	0.110	4777	0.160	6949	0.210	9120
.011	478	.061	2649	.111	4821	.161	6992	.211	9164
.012	521	.062	2693	.112	4864	.162	7036	.212	9207
.013	565	.063	2736	.113	4908	.163	7079	.213	9250
.014	608	.064	2779	.114	4951	.164	7122	.214	9294
0.015	651	0.065	2823	0.115	4994	0.165	7166	0.215	9337
.016	695	.066	2866	.116	5038	.166	7209	.216	9381
.017	738	.067	2910	.117	5081	.167	7253	.217	9424
.018	782	.068	2953	.118	5125	.168	7296	.218	9468
.019	825	.069	2997	.119	5168	.169	7340	.219	9511
0.020	869	0.070	3040	0.120	5212	0.170	7383	0.220	9554
.021	912	.071	3083	.121	5255	.171	7426	.221	9598
.022	955	.072	3127	.122	5298	.172	7470	.222	9641
.023	999	.073	3170	.123	5342	.173	7513	.223	9685
.024	1042	.074	3214	.124	5385	.174	7557	.224	9728
0.025	1086	0.075	3257	0.125	5429	0.175	7600	0.225	9772
.026	1129	.076	3301	.126	5472	.176	7644	.226	9815
.027	1173	.077	3344	.127	5516	.177	7687	.227	9858
.028	1216	.078	3387	.128	5559	.178	7730	.228	9902
.029	1259	.079	3431	.129	5602	.179	7774	.229	9945
0.030	1303	0.080	3474	0.130	5646	0.180	7817	0.230	9989
.031	1346	.081	3518	.131	5689	.181	7861	.231	10032
.032	1390	.082	3561	.132	5733	.182	7904	.232	10076
.033	1433	.083	3605	.133	5776	.183	7948	.233	10119
.034	1477	.084	3648	.134	5820	.184	7991	.234	10162
0.035	1520	0.085	3692	0.135	5863	0.185	8034	0.235	10206
.036	1563	.086	3735	.136	5906	.186	8078	.236	10249
.037	1607	.087	3778	.137	5950	.187	8121	.237	10293
.038	1650	.088	3822	.138	5993	.188	8165	.238	10336
.039	1694	.089	3865	.139	6037	.189	8208	.239	10380
0.040	1737	0.090	3909	0.140	6080	0.190	8252	0.240	10423
.041	1781	.091	3952	.141	6124	.191	8295	.241	10466
.042	1824	.092	3996	.142	6167	.192	8338	.242	10510
.043	1867	.093	4039	.143	6210	.193	8382	.243	10553
.044	1911	.094	4082	.144	6254	.194	8425	.244	10597
0.045	1954	0.095	4126	0.145	6297	0.195	8469	0.245	10640
.046	1998	.096	2169	.146	6341	.196	8512	.246	10684
.047	2041	.097	4213	.147	6384	.197	8556	.247	10727
.048	2085	.098	4256	.148	6428	.198	8599	.248	10771
.049	2128	.099	4300	.149	6471	.199	8642	.249	10814
0.050	2171	0.100	4343	0.150	6514	0.200	8686	0.250	10857
n	p	n	p	n	p	n	p	n	p

Auxiliary Table for Interpolation of $\mathrm{Log}_{10}(e^u)$.

($p = n \times 43429\ 44819\ .\ .\ .$)

n	p	n	p	n	p	n	p	n	p
0.250	10857	0.300	13029	0.350	15200	0.400	17372	0.450	19543
.251	10901	.301	13072	.351	15244	.401	17415	.451	19587
.252	10944	.302	13116	.352	15287	.402	17459	.452	19630
.253	10988	.303	13159	.353	15331	.403	17502	.453	19674
.254	11031	.304	13203	.354	15374	.404	17545	.454	19717
0.255	11075	0.305	13246	0.355	15417	0.405	17589	0.455	19760
.256	11118	.306	13289	.356	15461	.406	17632	.456	19804
.257	11161	.307	13333	.357	15504	.407	17676	.457	19847
.258	11205	.308	13376	.358	15548	.408	17719	.458	19891
.259	11248	.309	13420	.359	15591	.409	17763	.459	19934
0.260	11292	0.310	13463	0.360	15635	0.410	17806	0.460	19978
.261	11335	.311	13507	.361	15678	.411	17850	.461	20021
.262	11379	.312	13550	.362	15721	.412	17893	.462	20064
.263	11422	.313	13593	.363	15765	.413	17936	.463	20108
.264	11465	.314	13637	.364	15808	.414	17980	.464	20151
0.265	11509	0.315	13680	0.365	15852	0.415	18023	0.465	20195
.266	11552	.316	13724	.366	15895	.416	18067	.466	20238
.267	11596	.317	13767	.367	15939	.417	18110	.467	20282
.268	11639	.318	13811	.368	15982	.418	18154	.468	20325
.269	11683	.319	13854	.369	16025	.419	18197	.469	20368
0.270	11726	0.320	13897	0.370	16069	0.420	18240	0.470	20412
.271	11769	.321	13941	.371	16112	.421	18284	.471	20455
.272	11813	.322	13984	.372	16156	.422	18327	.472	20499
.273	11856	.323	14028	.373	16199	.423	18371	.473	20542
.274	11900	.324	14071	.374	16243	.424	18414	.474	20586
0.275	11943	0.325	14115	0.375	16286	0.425	18458	0.475	20629
.276	11987	.326	14158	.376	16329	.426	18501	.476	20672
.277	12030	.327	14201	.377	16373	.427	18544	.477	20716
.278	12073	.328	14245	.378	16416	.428	18588	.478	20759
.279	12117	.329	14288	.379	16460	.429	18631	.479	20803
0.280	12160	0.330	14332	0.380	16503	0.430	18675	0.480	20846
.281	12204	.331	14375	.381	16547	.431	18718	.481	20890
.282	12247	.332	14419	.382	16590	.432	18762	.482	20933
.283	12291	.333	14462	.383	16633	.433	18805	.483	20976
.284	12334	.334	14505	.384	16677	.434	18848	.484	21020
0.285	12377	0.335	14549	0.385	16720	0.435	18892	0.485	21063
.286	12421	.336	14592	.386	16764	.436	18935	.486	21107
.287	12464	.337	14636	.387	16807	.437	18979	.487	21150
.288	12508	.338	14679	.388	16851	.438	19022	.488	21194
.289	12551	.339	14723	.389	16894	.439	19066	.489	21237
0.290	12595	0.340	14766	0.390	16937	0.440	19109	0.490	21280
.291	12638	.341	14809	.391	16981	.441	19152	.491	21324
.292	12681	.342	14853	.392	17024	.442	19196	.493	21367
.293	12725	.343	14896	.393	17068	.443	19239	.493	21411
.294	12768	.344	14940	.394	17111	.444	19283	.494	21454
0.295	12812	0.345	14983	0.395	17155	0.445	19326	0.495	21498
.296	12855	.346	15027	.396	17198	.446	19370	.496	21541
.297	12899	.347	15070	.397	17241	.447	19413	.497	21584
.298	12942	.348	15113	.398	17285	.448	19456	.498	21628
.299	12985	.349	15157	.399	17328	.449	19500	.499	21671
0.300	13029	0.350	15200	0.400	17372	0.450	19543	0.500	21715
n	p	n	p	n	p	n	p	n	p

TABLE V

NATURAL LOGARITHMS

NOTE.—In Table V, for u greater than 158, linear interpolation of $\log_e u$ suffices to give a value whose error is not greater than one unit in the last place.

u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$
0	—∞	∞	50	3.91202	2000	100	4.60517	1000	150	5.01064	667
1	0.00000	100000	51	3.93183	1961	101	4.61512	990	151	5.01728	662
2	0.69315	50000	52	3.95124	1923	102	4.62497	980	152	5.02388	658
3	1.09861	33333	53	3.97029	1887	103	4.63473	971	153	5.03044	654
4	1.38629	25000	54	3.98898	1852	104	4.64439	962	154	5.03695	649
5	1.60944	20000	55	4.00733	1818	105	4.65396	952	155	5.04343	645
6	1.79176	16667	56	4.02535	1786	106	4.66344	943	156	5.04986	641
7	1.94591	14286	57	4.04305	1754	107	4.67283	935	157	5.05625	637
8	2.07944	12500	58	4.06044	1724	108	4.68213	926	158	5.06260	633
9	2.19722	11111	59	4.07754	1695	109	4.69135	917	159	5.06890	629
10	2.30259	10000	60	4.09434	1667	110	4.70048	909	160	5.07517	625
11	2.39790	9091	61	4.11087	1639	111	4.70953	901	161	5.08140	621
12	2.48491	8333	62	4.12713	1613	112	4.71850	893	162	5.08760	617
13	2.56495	7692	63	4.14313	1587	113	4.72739	885	163	5.09375	613
14	2.63906	7143	64	4.15888	1562	114	4.73620	877	164	5.09987	610
15	2.70805	6667	65	4.17439	1538	115	4.74493	870	165	5.10595	606
16	2.77259	6250	66	4.18965	1515	116	4.75359	862	166	5.11199	602
17	2.83321	5882	67	4.20469	1493	117	4.76217	855	167	5.11799	599
18	2.89037	5556	68	4.21951	1471	118	4.77068	847	168	5.12396	595
19	2.94444	5263	69	4.23411	1449	119	4.77912	840	169	5.12990	592
20	2.99573	5000	70	4.24850	1429	120	4.78749	833	170	5.13580	588
21	3.04452	4762	71	4.26268	1408	121	4.79579	826	171	5.14166	585
22	3.09104	4545	72	4.27667	1389	122	4.80402	820	172	5.14749	581
23	3.13549	4348	73	4.29046	1370	123	4.81218	813	173	5.15329	578
24	3.17805	4167	74	4.30407	1351	124	4.82028	806	174	5.15906	575
25	3.21888	4000	75	4.31749	1333	125	4.82831	800	175	5.16479	571
26	3.25810	3846	76	4.33073	1316	126	4.83628	794	176	5.17048	568
27	3.29584	3704	77	4.34381	1299	127	4.84419	787	177	5.17615	565
28	3.33220	3571	78	4.35671	1282	128	4.85203	781	178	5.18178	562
29	3.36730	3448	79	4.36945	1266	129	4.85981	775	179	5.18739	559
30	3.40120	3333	80	4.38203	1250	130	4.86753	769	180	5.19296	556
31	3.43399	3226	81	4.39445	1235	131	4.87520	763	181	5.19850	552
32	3.46574	3125	82	4.40672	1220	132	4.88280	758	182	5.20401	549
33	3.49651	3030	83	4.41884	1205	133	4.89035	752	183	5.20949	546
34	3.52636	2941	84	4.43082	1190	134	4.89784	746	184	5.21494	543
35	3.55535	2857	85	4.44265	1176	135	4.90527	741	185	5.22036	541
36	3.58352	2778	86	4.45435	1163	136	4.91265	735	186	5.22575	538
37	3.61092	2703	87	4.46591	1149	137	4.91998	730	187	5.23111	535
38	3.63759	2632	88	4.47734	1136	138	4.92725	725	188	5.23644	532
39	3.66356	2564	89	4.48864	1124	139	4.93447	719	189	5.24175	529
40	3.68888	2500	90	4.49981	1111	140	4.94164	714	190	5.24702	526
41	3.71357	2439	91	4.51086	1099	141	4.94876	709	191	5.25227	524
42	3.73767	2381	92	4.52179	1087	142	4.95583	704	192	5.25750	521
43	3.76120	2326	93	4.53260	1075	143	4.96284	699	193	5.26269	518
44	3.78419	2273	94	4.54329	1064	144	4.96981	694	194	5.26786	515
45	3.80666	2222	95	4.55388	1053	145	4.97673	690	195	5.27300	513
46	3.82864	2174	96	4.56435	1042	146	4.98361	685	196	5.27811	510
47	3.85015	2128	97	4.57471	1031	147	4.99043	680	197	5.28320	508
48	3.87120	2083	98	4.58497	1020	148	4.99721	676	198	5.28827	505
49	3.89182	2041	99	4.59512	1010	149	5.00395	671	199	5.29330	503
50	3.91202	2000	100	4.60517	1000	150	5.01064	667	200	5.29832	500
e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}

u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$
200	5.29832	500	250	5.52146	400	300	5.70378	333	350	5.85793	286
201	5.30330	498	251	5.52545	398	301	5.70711	332	351	5.86079	285
202	5.30827	495	252	5.52943	397	302	5.71043	331	352	5.86363	284
203	5.31321	493	253	5.53339	395	303	5.71373	330	353	5.86647	283
204	5.31812	490	254	5.53733	394	304	5.71703	329	354	5.86930	282
205	5.32301	488	255	5.54126	392	305	5.72031	328	355	5.87212	282
206	5.32788	485	256	5.54518	391	306	5.72359	327	356	5.87493	281
207	5.33272	483	257	5.54908	389	307	5.72685	326	357	5.87774	280
208	5.33754	481	258	5.55296	388	308	5.73010	325	358	5.88053	279
209	5.34233	478	259	5.55683	386	309	5.73334	324	359	5.88332	279
210	5.34711	476	260	5.56068	385	310	5.73657	323	360	5.88610	278
211	5.35186	474	261	5.56452	383	311	5.73979	322	361	5.88888	277
212	5.35659	472	262	5.56834	382	312	5.74300	321	362	5.89164	276
213	5.36129	469	263	5.57215	380	313	5.74620	319	363	5.89440	275
214	5.36598	467	264	5.57595	379	314	5.74939	318	364	5.89715	275
215	5.37064	465	265	5.57973	377	315	5.75257	317	365	5.89990	274
216	5.37528	463	266	5.58350	376	316	5.75574	316	366	5.90263	273
217	5.37990	461	267	5.58725	375	317	5.75890	315	367	5.90536	272
218	5.38450	459	268	5.59099	373	318	5.76205	314	368	5.90808	272
219	5.38907	457	269	5.59471	372	319	5.76519	313	369	5.91080	271
220	5.39363	455	270	5.59842	370	320	5.76832	312	370	5.91350	270
221	5.39816	452	271	5.60212	369	321	5.77144	312	371	5.91620	270
222	5.40268	450	272	5.60580	368	322	5.77455	311	372	5.91889	269
223	5.40717	448	273	5.60947	366	323	5.77765	310	373	5.92158	268
224	5.41165	446	274	5.61313	365	324	5.78074	309	374	5.92426	267
225	5.41610	444	275	5.61677	364	325	5.78383	308	375	5.92693	267
226	5.42053	442	276	5.62040	362	326	5.78690	307	376	5.92959	266
227	5.42495	441	277	5.62402	361	327	5.78996	306	377	5.93225	265
228	5.42935	439	278	5.62762	360	328	5.79301	305	378	5.93489	265
229	5.43372	437	279	5.63121	358	329	5.79606	304	379	5.93754	264
230	5.43808	435	280	5.63479	357	330	5.79909	303	380	5.94017	263
231	5.44242	433	281	5.63835	356	331	5.80212	302	381	5.94280	262
232	5.44674	431	282	5.64191	355	332	5.80513	301	382	5.94542	262
233	5.45104	429	283	5.64545	353	333	5.80814	300	383	5.94803	261
234	5.45532	427	284	5.64897	352	334	5.81114	299	384	5.95064	260
235	5.45959	426	285	5.65249	351	335	5.81413	299	385	5.95324	260
236	5.46383	424	286	5.65599	350	336	5.81711	298	386	5.95584	259
237	5.46806	422	287	5.65948	348	337	5.82008	297	387	5.95842	258
238	5.47227	420	288	5.66296	347	338	5.82305	296	388	5.96101	258
239	5.47646	418	289	5.66643	346	339	5.82600	295	389	5.96358	257
240	5.48064	417	290	5.66988	345	340	5.82895	294	390	5.96615	256
241	5.48480	415	291	5.67332	344	341	5.83188	293	391	5.96871	256
242	5.48894	413	292	5.67675	342	342	5.83481	292	392	5.97126	255
243	5.49306	412	293	5.68017	341	343	5.83773	292	393	5.97381	254
244	5.49717	410	294	5.68358	340	344	5.84064	291	394	5.97635	254
245	5.50126	408	295	5.68698	339	345	5.84354	290	395	5.97889	253
246	5.50533	407	296	5.69036	338	346	5.84644	289	396	5.98141	253
247	5.50939	405	297	5.69373	337	347	5.84932	288	397	5.98394	252
248	5.51343	403	298	5.69709	336	348	5.85220	287	398	5.98645	251
249	5.51745	402	299	5.70044	334	349	5.85507	287	399	5.98896	251
250	5.52146	400	300	5.70378	333	350	5.85793	286	400	5.99146	250
e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}

u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$
400	5.99146	250	450	6.10925	222	500	6.21461	200	550	6.30992	182
401	5.99396	249	451	6.11147	222	501	6.21661	200	551	6.31173	181
402	5.99645	249	452	6.11368	221	502	6.21860	199	552	6.31355	181
403	5.99894	248	453	6.11589	221	503	6.22059	199	553	6.31536	181
404	6.00141	248	454	6.11810	220	504	6.22258	198	554	6.31716	181
405	6.00389	247	455	6.12030	220	505	6.22456	198	555	6.31897	180
406	6.00635	246	456	6.12249	219	506	6.22654	198	556	6.32077	180
407	6.00881	246	457	6.12468	219	507	6.22851	197	557	6.32257	180
408	6.01127	245	458	6.12687	218	508	6.23048	197	558	6.32436	179
409	6.01372	244	459	6.12905	218	509	6.23245	196	559	6.32615	179
410	6.01616	244	460	6.13123	217	510	6.23441	196	560	6.32794	179
411	6.01859	243	461	6.13340	217	511	6.23637	196	561	6.32972	178
412	6.02102	243	462	6.13556	216	512	6.23832	195	562	6.33150	178
413	6.02345	242	463	6.13773	216	513	6.24028	195	563	6.33328	178
414	6.02587	242	464	6.13988	216	514	6.24222	195	564	6.33505	177
415	6.02828	241	465	6.14204	215	515	6.24417	194	565	6.33683	177
416	6.03069	240	466	6.14419	215	516	6.24611	194	566	6.33859	177
417	6.03309	240	467	6.14633	214	517	6.24804	193	567	6.34036	176
418	6.03548	239	468	6.14847	214	518	6.24998	193	568	6.34212	176
419	6.03787	239	469	6.15060	213	519	6.25190	193	569	6.34388	176
420	6.04025	238	470	6.15273	213	520	6.25383	192	570	6.34564	175
421	6.04263	238	471	6.15486	212	521	6.25575	192	571	6.34739	175
422	6.04501	237	472	6.15698	212	522	6.25767	192	572	6.34914	175
423	6.04737	236	473	6.15910	211	523	6.25958	191	573	6.35089	175
424	6.04973	236	474	6.16121	211	524	6.26149	191	574	6.35263	174
425	6.05209	235	475	6.16331	211	525	6.26340	190	575	6.35437	174
426	6.05444	235	476	6.16542	210	526	6.26530	190	576	6.35611	174
427	6.05678	234	477	6.16752	210	527	6.26720	190	577	6.35784	173
428	6.05912	234	478	6.16961	209	528	6.26910	189	578	6.35957	173
429	6.06146	233	479	6.17170	209	529	6.27099	189	579	6.36130	173
430	6.06379	233	480	6.17379	208	530	6.27288	189	580	6.36303	172
431	6.06611	232	481	6.17587	208	531	6.27476	188	581	6.36475	172
432	6.06843	231	482	6.17794	207	532	6.27664	188	582	6.36647	172
433	6.07074	231	483	6.18002	207	533	6.27852	188	583	6.36819	172
434	6.07304	230	484	6.18208	207	534	6.28040	187	584	6.36990	171
435	6.07535	230	485	6.18415	206	535	6.28227	187	585	6.37161	171
436	6.07764	229	486	6.18621	206	536	6.28413	187	586	6.37332	171
437	6.07993	229	487	6.18826	205	537	6.28600	186	587	6.37502	170
438	6.08222	228	488	6.19032	205	538	6.28786	186	588	6.37673	170
439	6.08450	228	489	6.19236	204	539	6.28972	186	589	6.37843	170
440	6.08677	227	490	6.19441	204	540	6.29157	185	590	6.38012	169
441	6.08904	227	491	6.19644	204	541	6.29342	185	591	6.38182	169
442	6.09131	226	492	6.19848	203	542	6.29527	185	592	6.38351	169
443	6.09357	226	493	6.20051	203	543	6.29711	184	593	6.38519	169
444	6.09582	225	494	6.20254	202	544	6.29895	184	594	6.38688	168
445	6.09807	225	495	6.20456	202	545	6.30079	183	595	6.38856	168
446	6.10032	224	496	6.20658	202	546	6.30262	183	596	6.39024	168
447	6.10256	224	497	6.20859	201	547	6.30445	183	597	6.39192	168
448	6.10479	223	498	6.21060	201	548	6.30628	182	598	6.39359	167
449	6.10702	223	499	6.21261	200	549	6.30810	182	599	6.39526	167
450	6.10925	222	500	6.21461	200	550	6.30992	182	600	6.39693	167
e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}

u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$
600	6.39693	167	650	6.47697	154	700	6.55108	143	750	6.62007	133
601	6.39859	166	651	6.47851	154	701	6.55251	143	751	6.62141	133
602	6.40026	166	652	6.48004	153	702	6.55393	142	752	6.62274	133
603	6.40192	166	653	6.48158	153	703	6.55536	142	753	6.62407	133
604	6.40357	166	654	6.48311	153	704	6.55678	142	754	6.62539	133
605	6.40523	165	655	6.48464	153	705	6.55820	142	755	6.62672	132
606	6.40688	165	656	6.48616	152	706	6.55962	142	756	6.62804	132
607	6.40853	165	657	6.48768	152	707	6.56103	141	757	6.62936	132
608	6.41017	164	658	6.48920	152	708	6.56244	141	758	6.63068	132
609	6.41182	164	659	6.49072	152	709	6.56386	141	759	6.63200	132
610	6.41346	164	660	6.49224	152	710	6.56526	141	760	6.63332	132
611	6.41510	164	661	6.49375	151	711	6.56667	141	761	6.63463	131
612	6.41673	163	662	6.49527	151	712	6.56808	140	762	6.63595	131
613	6.41836	163	663	6.49677	151	713	6.56948	140	763	6.63726	131
614	6.41999	163	664	6.49828	151	714	6.57088	140	764	6.63857	131
615	6.42162	163	665	6.49979	150	715	6.57228	140	765	6.63988	131
616	6.42325	162	666	6.50129	150	716	6.57368	140	766	6.64118	131
617	6.42487	162	667	6.50279	150	717	6.57508	139	767	6.64249	130
618	6.42649	162	668	6.50429	150	718	6.57647	139	768	6.64379	130
619	6.42811	162	669	6.50578	149	719	6.57786	139	769	6.64509	130
620	6.42972	161	670	6.50728	149	720	6.57925	139	770	6.64639	130
621	6.43133	161	671	6.50877	149	721	6.58064	139	771	6.64769	130
622	6.43294	161	672	6.51026	149	722	6.58203	139	772	6.64898	130
623	6.43455	161	673	6.51175	149	723	6.58341	138	773	6.65028	129
624	6.43615	160	674	6.51323	148	724	6.58479	138	774	6.65157	129
625	6.43775	160	675	6.51471	148	725	6.58617	138	775	6.65286	129
626	6.43935	160	676	6.51619	148	726	6.58755	138	776	6.65415	129
627	6.44095	159	677	6.51767	148	727	6.58893	138	777	6.65544	129
628	6.44254	159	678	6.51915	147	728	6.59030	137	778	6.65673	129
629	6.44413	159	679	6.52062	147	729	6.59167	137	779	6.65801	128
630	6.44572	159	680	6.52209	147	730	6.59304	137	780	6.65929	128
631	6.44731	158	681	6.52356	147	731	6.59441	137	781	6.66058	128
632	6.44889	158	682	6.52503	147	732	6.59578	137	782	6.66185	128
633	6.45047	158	683	6.52649	146	733	6.59715	136	783	6.66313	128
634	6.45205	158	684	6.52796	146	734	6.59851	136	784	6.66441	128
635	6.45362	157	685	6.52942	146	735	6.59987	136	785	6.66568	127
636	6.45520	157	686	6.53088	146	736	6.60123	136	786	6.66696	127
637	6.45677	157	687	6.53233	146	737	6.60259	136	787	6.66823	127
638	6.45834	157	688	6.53379	145	738	6.60394	136	788	6.66950	127
639	6.45990	156	689	6.53524	145	739	6.60530	135	789	6.67077	127
640	6.46147	156	690	6.53669	145	740	6.60665	135	790	6.67203	127
641	6.46303	156	691	6.53814	145	741	6.60800	135	791	6.67330	126
642	6.46459	156	692	6.53959	145	742	6.60935	135	792	6.67456	126
643	6.46614	156	693	6.54103	144	743	6.61070	135	793	6.67582	126
644	6.46770	155	694	6.54247	144	744	6.61204	134	794	6.67708	126
645	6.46925	155	695	6.54391	144	745	6.61338	134	795	6.67834	126
646	6.47080	155	696	6.54535	144	746	6.61473	134	796	6.67960	126
647	6.47235	155	697	6.54679	143	747	6.61607	134	797	6.68085	125
648	6.47389	154	698	6.54822	143	748	6.61740	134	798	6.68211	125
649	6.47543	154	699	6.54965	143	749	6.61874	134	799	6.68336	125
650	6.47697	154	700	6.55108	143	750	6.62007	133	800	6.68461	125
e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}

u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$	u	$\log_e u$	$\omega F_0'$
800	6.68461	125	850	6.74524	118	900	6.80239	111	950	6.85646	105
801	6.68586	125	851	6.74641	118	901	6.80351	111	951	6.85751	105
802	6.68711	125	852	6.74759	117	902	6.80461	111	952	6.85857	105
803	6.68835	125	853	6.74876	117	903	6.80572	111	953	6.85961	105
804	6.68960	124	854	6.74993	117	904	6.80683	111	954	6.86066	105
805	6.69084	124	855	6.75110	117	905	6.80793	110	955	6.86171	105
806	6.69208	124	856	6.75227	117	906	6.80904	110	956	6.86276	105
807	6.69332	124	857	6.75344	117	907	6.81014	110	957	6.86380	104
808	6.69456	124	858	6.75460	117	908	6.81124	110	958	6.86485	104
809	6.69580	124	859	6.75577	116	909	6.81235	110	959	6.86589	104
810	6.69703	123	860	6.75693	116	910	6.81344	110	960	6.86693	104
811	6.69827	123	861	6.75809	116	911	6.81454	110	961	6.86797	104
812	6.69950	123	862	6.75926	116	912	6.81564	110	962	6.86901	104
813	6.70073	123	863	6.76041	116	913	6.81674	110	963	6.87005	104
814	6.70196	123	864	6.76157	116	914	6.81783	109	964	6.87109	104
815	6.70319	123	865	6.76273	116	915	6.81892	109	965	6.87213	104
816	6.70441	123	866	6.76388	115	916	6.82002	109	966	6.87316	104
817	6.70564	122	867	6.76504	115	917	6.82111	109	967	6.87420	103
818	6.70686	122	868	6.76619	115	918	6.82220	109	968	6.87523	103
819	6.70808	122	869	6.76734	115	919	6.82329	109	969	6.87626	103
820	6.70930	122	870	6.76849	115	920	6.82437	109	970	6.87730	103
821	6.71052	122	871	6.76964	115	921	6.82546	109	971	6.87833	103
822	6.71174	122	872	6.77079	115	922	6.82655	108	972	6.87936	103
823	6.71296	122	873	6.77194	115	923	6.82763	108	973	6.88038	103
824	6.71417	121	874	6.77308	114	924	6.82871	108	974	6.88141	103
825	6.71538	121	875	6.77422	114	925	6.82979	108	975	6.88244	103
826	6.71659	121	876	6.77537	114	926	6.83087	108	976	6.88346	102
827	6.71780	121	877	6.77651	114	927	6.83195	108	977	6.88449	102
828	6.71901	121	878	6.77765	114	928	6.83303	108	978	6.88551	102
829	6.72022	121	879	6.77878	114	929	6.83411	108	979	6.88653	102
830	6.72143	120	880	6.77992	114	930	6.83518	108	980	6.88755	102
831	6.72263	120	881	6.78106	114	931	6.83626	107	981	6.88857	102
832	6.72383	120	882	6.78219	113	932	6.83733	107	982	6.88959	102
833	6.72503	120	883	6.78333	113	933	6.83841	107	983	6.89061	102
834	6.72623	120	884	6.78446	113	934	6.83948	107	984	6.89163	102
835	6.72743	120	885	6.78559	113	935	6.84055	107	985	6.89264	102
836	6.72863	120	886	6.78672	113	936	6.84162	107	986	6.89366	101
837	6.72982	119	887	6.78784	113	937	6.84268	107	987	6.89467	101
838	6.73102	119	888	6.78897	113	938	6.84375	107	988	6.89568	101
839	6.73221	119	889	6.79010	112	939	6.84482	106	989	6.89669	101
840	6.73340	119	890	6.79122	112	940	6.84588	106	990	6.89770	101
841	6.73459	119	891	6.79234	112	941	6.84694	106	991	6.89871	101
842	6.73578	119	892	6.79347	112	942	6.84801	106	992	6.89972	101
843	6.73697	119	893	6.79459	112	943	6.84907	106	993	6.90073	101
844	6.73815	118	894	6.79571	112	944	6.85013	106	994	6.90174	101
845	6.73934	118	895	6.79682	112	945	6.85118	106	995	6.90274	101
846	6.74052	118	896	6.79794	112	946	6.85224	106	996	6.90375	100
847	6.74170	118	897	6.79906	111	947	6.85330	106	997	6.90475	100
848	6.74288	118	898	6.80017	111	948	6.85435	105	998	6.90575	100
849	6.74406	118	899	6.80128	111	949	6.85541	105	999	6.90675	100
850	6.74524	118	900	6.80239	111	950	6.85646	105	1000	6.90776	100
e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}	e^x	x	e^{-x}

u	$\log_e u$	u	$\log_e u$	u	$\log_e u$	u	$\log_e u$	u	$\log_e u$
1000	6.90776	1361	7.21598	1721	7.45066	2111	7.65492	2503	7.82525
1009	6.91672	1367	7.22037	1723	7.45182	2113	7.65586	2521	7.83241
1013	6.92067	1373	7.22475	1733	7.45761	2129	7.66341	2531	7.83637
1019	6.92658	1381	7.23056	1741	7.46221	2131	7.66435	2539	7.83953
1021	6.92854	1399	7.24351	1747	7.46566	2137	7.66716	2543	7.84110
1031	6.93828	1409	7.25064	1753	7.46908	2141	7.66903	2549	7.84346
1033	6.94022	1423	7.26052	1759	7.47250	2143	7.66996	2551	7.84424
1039	6.94601	1427	7.26333	1777	7.48268	2153	7.67462	2557	7.84659
1049	6.95559	1429	7.26473	1783	7.48605	2161	7.67833	2579	7.85516
1051	6.95750	1433	7.26753	1787	7.48829	2179	7.68662	2591	7.85980
1061	6.96697	1439	7.27170	1789	7.48941	2203	7.69758	2593	7.86057
1063	6.96885	1447	7.27725	1801	7.49610	2207	7.69939	2609	7.86672
1069	6.97448	1451	7.28001	1811	7.50163	2213	7.70210	2617	7.86978
1087	6.99118	1453	7.28139	1823	7.50824	2221	7.70571	2621	7.87131
1091	6.99485	1459	7.28551	1831	7.51262	2237	7.71289	2633	7.87588
1093	6.99668	1471	7.29370	1847	7.52132	2239	7.71378	2647	7.88118
1097	7.00033	1481	7.30047	1861	7.52887	2243	7.71557	2657	7.88495
1103	7.00579	1483	7.30182	1867	7.53209	2251	7.71913	2659	7.88571
1109	7.01121	1487	7.30452	1871	7.53423	2267	7.72621	2663	7.88721
1117	7.01840	1489	7.30586	1873	7.53530	2269	7.72709	2671	7.89021
1123	7.02376	1493	7.30854	1877	7.53743	2273	7.72886	2677	7.89245
1129	7.02909	1499	7.31255	1879	7.53849	2281	7.73237	2683	7.89469
1151	7.04839	1511	7.32053	1889	7.54380	2287	7.73500	2687	7.89618
1153	7.05012	1523	7.32844	1901	7.55014	2293	7.73762	2689	7.89692
1163	7.05876	1531	7.33368	1907	7.55329	2297	7.73936	2693	7.89841
1171	7.06561	1543	7.34148	1913	7.55643	2309	7.74457	2699	7.90064
1181	7.07412	1549	7.34536	1931	7.56579	2311	7.74544	2707	7.90360
1187	7.07918	1553	7.34794	1933	7.56683	2333	7.75491	2711	7.90507
1193	7.08423	1559	7.35180	1949	7.57507	2339	7.75748	2713	7.90581
1201	7.09091	1567	7.35692	1951	7.57610	2341	7.75833	2719	7.90802
1213	7.10085	1571	7.35947	1973	7.58731	2347	7.76089	2729	7.91169
1217	7.10414	1579	7.36455	1979	7.59035	2351	7.76260	2731	7.91242
1223	7.10906	1583	7.36708	1987	7.59438	2357	7.76514	2741	7.91608
1229	7.11396	1597	7.37588	1993	7.59740	2371	7.77107	2749	7.91899
1231	7.11558	1601	7.37838	1997	7.59940	2377	7.77359	2753	7.92045
1237	7.12044	1607	7.38212	1999	7.60040	2381	7.77528	2767	7.92552
1249	7.13010	1609	7.38337	2003	7.60240	2383	7.77612	2777	7.92913
1259	7.13807	1613	7.38585	2011	7.60639	2389	7.77863	2789	7.93344
1277	7.15227	1619	7.38956	2017	7.60937	2393	7.78030	2791	7.93416
1279	7.15383	1621	7.39080	2027	7.61431	2399	7.78281	2797	7.93630
1283	7.15696	1627	7.39449	2029	7.61530	2411	7.78780	2801	7.93773
1289	7.16162	1637	7.40062	2039	7.62021	2417	7.79028	2803	7.93845
1291	7.16317	1657	7.41276	2053	7.62706	2423	7.79276	2819	7.94414
1297	7.16781	1663	7.41638	2063	7.63192	2437	7.79852	2833	7.94909
1301	7.17089	1667	7.41878	2069	7.63482	2441	7.80016	2837	7.95050
1303	7.17242	1669	7.41998	2081	7.64060	2447	7.80262	2843	7.95262
1307	7.17549	1693	7.43426	2083	7.64156	2459	7.80751	2851	7.95543
1319	7.18463	1697	7.43662	2087	7.64348	2467	7.81076	2857	7.95753
1321	7.18614	1699	7.43780	2089	7.64444	2473	7.81319	2861	7.95893
1327	7.19068	1709	7.44366	2099	7.64922	2477	7.81480	2879	7.96520
e^x	x	e^x	x	e^x	x	e^x	x	e^x	x

u	$\log_e u$	u	$\log_e u$	u	$\log_e u$	u	$\log_e u$	u	$\log_e u$
2887	7.96797	3323	8.10862	3709	8.21852	4129	8.32579	4561	8.42530
2897	7.97143	3329	8.11043	3719	8.22121	4133	8.32676	4567	8.42661
2903	7.97350	3331	8.11103	3727	8.22336	4139	8.32821	4583	8.43011
2909	7.97556	3343	8.11462	3733	8.22497	4153	8.33159	4591	8.43185
2917	7.97831	3347	8.11582	3739	8.22657	4157	8.33255	4597	8.43316
2927	7.98173	3359	8.11940	3761	8.23244	4159	8.33303	4603	8.43446
2959	7.98582	3361	8.11999	3767	8.23403	4177	8.33735	4621	8.43837
2953	7.99058	3371	8.12296	3769	8.23456	4201	8.34308	4637	8.44182
2957	7.99193	3373	8.12356	3779	8.23721	4211	8.34546	4639	8.44225
2963	7.99396	3389	8.12829	3793	8.24091	4217	8.34688	4643	8.44312
2969	7.99598	3391	8.12888	3797	8.24197	4219	8.34735	4649	8.44441
2971	7.99665	3407	8.13359	3803	8.24355	4229	8.34972	4651	8.44484
2999	8.00603	3413	8.13535	3821	8.24827	4231	8.35019	4657	8.44613
3001	8.00670	3433	8.14119	3823	8.24879	4241	8.35255	4663	8.44741
3011	8.01003	3449	8.14584	3833	8.25140	4243	8.35303	4673	8.44956
3019	8.01268	3457	8.14816	3847	8.25505	4253	8.35538	4679	8.45084
3023	8.01400	3461	8.14931	3851	8.25609	4259	8.35679	4691	8.45340
3037	8.01863	3463	8.14989	3853	8.25661	4261	8.35726	4703	8.45596
3041	8.01994	3467	8.15104	3863	8.25920	4271	8.35960	4721	8.45978
3049	8.02257	3469	8.15162	3777	8.26282	4273	8.36007	4723	8.46020
3061	8.02650	3491	8.15794	3881	8.26385	4283	8.36241	4729	8.46147
3067	8.02846	3499	8.16023	3889	8.26591	4289	8.36381	4733	8.46231
3079	8.03236	3511	8.16366	3907	8.27053	4297	8.36567	4751	8.46611
3083	8.03366	3517	8.16536	3911	8.27155	4327	8.37263	4759	8.46779
3089	8.03560	3527	8.16820	3917	8.27308	4337	8.37494	4783	8.47282
3109	8.04206	3529	8.16877	3919	8.27359	4339	8.37540	4787	8.47366
3119	8.04527	3533	8.16990	3923	8.27461	4349	8.37770	4789	8.47408
3121	8.04591	3539	8.17160	3929	8.27614	4357	8.37954	4793	8.47491
3137	8.05102	3541	8.17216	3931	8.27665	4363	8.38092	4799	8.47616
3163	8.05928	3547	8.17386	3943	8.27970	4373	8.38320	4801	8.47658
3167	8.06054	3557	8.17667	3947	8.28071	4391	8.38731	4813	8.47908
3169	8.06117	3559	8.17723	3967	8.28577	4397	8.38868	4817	8.47991
3181	8.06495	3571	8.18060	3989	8.29130	4409	8.39140	4831	8.48281
3187	8.06684	3581	8.18340	4001	8.29430	4421	8.39412	4861	8.48900
3191	8.06809	3583	8.18396	4003	8.29480	4423	8.39457	4871	8.49105
3203	8.07184	3593	8.18674	4007	8.29580	4441	8.39863	4877	8.49229
3209	8.07371	3607	8.19063	4013	8.29729	4447	8.39998	4889	8.49474
3217	8.07620	3613	8.19229	4019	8.29879	4451	8.40088	4903	8.49760
3221	8.07745	3617	8.19340	4021	8.29929	4457	8.40223	4909	8.49883
3229	8.07993	3623	8.19506	4027	8.30078	4463	8.40358	4919	8.50086
3251	8.08672	3631	8.19726	4049	8.30623	4481	8.40760	4931	8.50330
3253	8.08733	3637	8.19891	4051	8.30672	4483	8.40805	4933	8.50370
3257	8.08856	3643	8.20056	4057	8.30820	4493	8.41028	4937	8.50451
3259	8.08918	3659	8.20495	4073	8.31214	4507	8.41339	4943	8.50573
3271	8.09285	3671	8.20822	4079	8.31361	4513	8.41472	4951	8.50734
3299	8.10137	3673	8.20876	4091	8.31654	4517	8.41560	4957	8.50856
3301	8.10198	3677	8.20985	4093	8.31703	4519	8.41605	4967	8.51057
3307	8.10380	3691	8.21365	4099	8.31850	4523	8.41693	4969	8.51097
3313	8.10561	3697	8.21528	4111	8.32142	4547	8.42222	4973	8.51178
3319	8.10742	3701	8.21636	4127	8.32531	4549	8.42266	4987	8.51459
e^x	x	e^x	x	e^x	x	e^x	x	e^x	x

u	$\log_e u$	u	$\log_e u$	u	$\log_e u$	u	$\log_e u$	u	$\log_e u$
4993	8.51579	5437	8.60098	5849	8.67403	6287	8.74624	6733	8.81478
4999	8.51699	5441	8.60172	5851	8.67437	6299	8.74815	6737	8.81537
5003	8.51779	5443	8.60209	5857	8.67539	6301	8.74846	6761	8.31893
5009	8.51899	5449	8.60319	5861	8.67608	6311	8.75005	6763	8.81922
5011	8.51939	5471	8.60722	5867	8.67710	6317	8.75100	6779	8.82158
5021	8.52138	5477	8.60831	5869	8.67744	6323	8.75195	6781	8.82188
5023	8.52178	5479	8.60868	5879	8.67914	6329	8.75290	6791	8.82335
5039	8.52496	5483	8.60941	5881	8.67948	6337	8.75416	6793	8.82365
5051	8.52734	5501	8.61269	5897	8.68220	6343	8.75511	6803	8.82512
5059	8.52892	5503	8.61305	5903	8.68322	6353	8.75668	6823	8.82805
5077	8.53248	5507	8.61378	5923	8.68660	6359	8.75763	6827	8.82864
5081	8.53326	5519	8.61595	5927	8.68727	6361	8.75794	6829	8.82893
5087	8.53444	5521	8.61631	5939	8.68930	6367	8.75888	6833	8.82952
5099	8.53680	5527	8.61740	5953	8.69165	6373	8.75983	6841	8.83069
5101	8.53719	5531	8.61812	5981	8.69634	6379	8.76077	6857	8.83303
5107	8.53837	5557	8.62281	5987	8.69735	6389	8.76233	6863	8.83390
5113	8.53954	5563	8.62389	6007	8.70068	6397	8.76358	6869	8.83477
5119	8.54071	5569	8.62497	6011	8.70135	6421	8.76733	6871	8.83506
5147	8.54617	5573	8.62569	6029	8.70434	6427	8.76826	6883	8.83681
5153	8.54733	5581	8.62712	6037	8.70566	6449	8.77168	6889	8.83768
5167	8.55005	5591	8.62891	6043	8.70666	6451	8.77199	6907	8.84029
5171	8.55082	5623	8.63462	6047	8.70732	6469	8.77478	6911	8.84087
5179	8.55237	5639	8.63746	6053	8.70831	6473	8.77539	6917	8.84174
5189	8.55430	5641	8.63782	6067	8.71062	6481	8.77663	6947	8.84607
5197	8.55584	5647	8.63888	6073	8.71161	6491	8.77817	6949	8.84635
5209	8.55814	5651	8.63959	6079	8.71260	6521	8.78278	6959	8.84779
5227	8.56159	5653	8.63994	6089	8.71424	6529	8.78401	6961	8.84808
5231	8.56236	5657	8.64065	6091	8.71457	6547	8.78676	6967	8.84894
5233	8.56274	5659	8.64100	6101	8.71621	6551	8.78737	6971	8.84951
5237	8.56350	5669	8.64277	6113	8.71817	6553	8.78768	6977	8.85037
5261	8.56808	5683	8.64523	6121	8.71948	6563	8.78920	6983	8.85123
5273	8.57035	5689	8.64629	6131	8.72111	6569	8.79012	6991	8.85238
5279	8.57149	5693	8.64699	6133	8.72144	6571	8.79042	6997	8.85324
5281	8.57187	5701	8.64840	6143	8.72307	6577	8.79133	7001	8.85381
5297	8.57490	5711	8.65015	6151	8.72437	6581	8.79194	7013	8.85552
5303	8.57603	5717	8.65120	6163	8.72632	6599	8.79467	7019	8.85638
5309	8.57716	5737	8.65469	6173	8.72794	6607	8.79588	7027	8.85752
5323	8.57979	5741	8.65539	6197	8.73182	6619	8.79770	7039	8.85922
5333	8.58167	5743	8.65574	6199	8.73214	6637	8.80042	7043	8.85979
5347	8.58429	5749	8.65678	6203	8.73279	6653	8.80282	7057	8.86178
5351	8.58504	5779	8.66199	6211	8.73408	6659	8.80372	7069	8.86347
5381	8.59063	5783	8.66268	6217	8.73504	6661	8.80402	7079	8.86489
5387	8.59174	5791	8.66406	6221	8.73569	6673	8.80582	7103	8.86827
5393	8.59286	5801	8.66579	6229	8.73697	6679	8.80672	7109	8.86912
5399	8.59397	5807	8.66682	6247	8.73986	6689	8.80822	7121	8.87080
5407	8.59545	5813	8.66785	6257	8.74146	6691	8.80852	7127	8.87165
5413	8.59656	5821	8.66923	6263	8.74241	6701	8.81001	7129	8.87193
5417	8.59730	5827	8.67026	6269	8.74337	6703	8.81031	7151	8.87501
5419	8.59767	5839	8.67231	6271	8.74369	6709	8.81121	7159	8.87613
5421	8.59988	5843	8.67300	6277	8.74465	6719	8.81269	7177	8.87864
e^x	x	e^x	x	e^x	x	e^x	x	e^x	x

u	Log$_e$u	u	Log$_e$u	u	Log$_e$u	u	Log$_e$u	u	Log$_e$u
7187	8.88003	7621	8.93866	8093	8.99875	8573	9.05637	9001	9.10509
7193	8.88086	7639	8.94102	8101	8.99974	8581	9.05731	9007	9.10576
7207	8.88281	7643	8.94155	8111	9.00098	8597	9.05917	9011	9.10620
7211	8.88336	7649	8.94233	8117	9.00172	8599	9.05940	9013	9.10642
7213	8.88364	7669	8.94494	8123	9.00245	8609	9.06056	9029	9.10820
7219	8.88447	7673	8.94546	8147	9.00541	8623	9.06219	9041	9.10953
7229	8.88586	7681	8.94651	8161	9.00712	8627	9.06265	9043	9.10975
7237	8.88696	7687	8.94729	8167	9.00786	8629	9.06288	9049	9.11041
7243	8.88779	7691	8.94781	8171	9.00835	8641	9.06427	9059	9.11151
7247	8.88834	7699	8.94885	8179	9.00933	8647	9.06497	9067	9.11240
7253	8.88917	7703	8.94937	8191	9.01079	8663	9.06682	9091	9.11504
7283	8.89330	7717	8.95118	8209	9.01299	8669	9.06751	9103	9.11636
7297	8.89522	7723	8.95196	8219	9.01420	8677	9.06843	9109	9.11702
7307	8.89659	7727	8.95248	8221	9.01445	8681	9.06889	9127	9.11899
7309	8.89686	7741	8.95429	8231	9.01566	8689	9.06981	9133	9.11965
7321	8.89850	7753	8.95584	8233	9.01591	8693	9.07027	9137	9.12009
7331	8.89987	7757	8.95635	8237	9.01639	8699	9.07096	9151	9.12162
7333	8.90014	7759	8.95661	8243	9.01712	8707	9.07188	9157	9.12227
7349	8.90232	7789	8.96047	8263	9.01954	8713	9.07257	9161	9.12271
7351	8.90259	7793	8.96098	8269	9.02027	8719	9.07326	9173	9.12402
7369	8.90504	7817	8.96406	8273	9.02075	8731	9.07464	9181	9.12489
7393	8.90829	7823	8.96482	8287	9.02244	8737	9.07532	9187	9.12554
7411	8.91072	7829	8.96559	8291	9.02293	8741	9.07578	9199	9.12685
7417	8.91153	7841	8.96712	8293	9.02317	8747	9.07647	9203	9.12728
7433	8.91368	7853	8.96765	8297	9.02365	8753	9.07715	9209	9.12794
7451	8.91610	7867	8.97043	8311	9.02534	8761	9.07807	9221	9.12924
7457	8.91691	7873	8.97119	8317	9.02606	8779	9.08012	9227	9.12989
7459	8.91718	7877	8.97170	8329	9.02750	8783	9.08057	9239	9.13119
7477	8.91959	7879	8.97196	8353	9.03038	8803	9.08285	9241	9.13141
7481	8.92012	7883	8.97246	8363	9.03157	8807	9.08330	9257	9.13314
7487	8.92092	7901	8.97474	8369	9.03229	8819	9.08466	9277	9.13529
7489	8.92119	7907	8.97550	8377	9.03325	8821	9.08489	9281	9.13572
7499	8.92252	7919	8.97702	8387	9.03444	8831	9.08602	9283	9.13594
7507	8.92359	7927	8.97803	8389	9.03468	8837	9.08670	9293	9.13702
7517	8.92492	7933	8.97879	8419	9.03825	8839	9.08693	9311	9.13895
7523	8.92572	7937	8.97929	8423	9.03872	8849	9.08806	9319	9.13981
7529	8.92652	7949	8.98080	8429	9.03943	8861	9.08941	9323	9.14024
7537	8.92758	7951	8.98105	8431	9.03967	8863	9.08964	9337	9.14174
7541	8.92811	7963	8.98256	8443	9.04109	8867	9.09009	9341	9.14217
7547	8.92891	7993	8.98632	8447	9.04157	8887	9.09234	9343	9.14238
7549	8.92917	8009	8.98832	8461	9.04322	8893	9.09302	9349	9.14302
7559	8.93049	8011	8.98857	8467	9.04393	8923	9.09639	9371	9.14538
7561	8.93076	8017	8.98932	8501	9.04794	8929	9.09706	9377	9.14602
7573	8.93234	8039	8.99206	8513	9.04935	8933	9.09751	9391	9.14751
7577	8.93287	8053	8.99380	8521	9.05029	8941	9.09840	9397	9.14815
7583	8.93366	8059	8.99454	8527	9.05099	8951	9.09952	9403	9.14878
7589	8.93446	8069	8.99578	8537	9.05216	8963	9.10086	9413	9.14985
7591	8.93472	8081	8.99727	8539	9.05240	8969	9.10153	9419	9.15048
7603	8.93630	8087	8.99801	8543	9.05287	8971	9.10175	9421	9.15070
7607	8.93682	8089	8.99826	8563	9.05521	8999	9.10487	9431	9.15176
e^x	x	e^x	x	e^x	x	e^x	x	e^x	x

u	$\log_e u$	u	$\log_e u$	u	$\log_e u$	u	$\log_e u$	u	$\log_e u$
9433	9.15197	9551	9.16440	9719	9.18184	9833	9.19350	9967	9.20703
9437	9.15239	9587	9.16816	9721	9.18204	9839	9.19411	9973	9.20764
9439	9.15261	9601	9.16962	9733	9.18328	9851	9.19533	10000	9.21034
9461	9.15493	9613	9.17087	9739	9.18389	9857	9.19594	100000	11.51293
9463	9.15514	9619	9.17150	9743	9.18430	9859	9.19614		
9467	9.15557	9623	9.17191	9749	9.18492	9871	9.19736		
9473	9.15620	9629	9.17253	9767	9.18676	9883	9.19857		
9479	9.15683	9631	9.17274	9769	9.18697	9887	9.19898		
9491	9.15810	9643	9.17399	9781	9.18820	9901	9.20039		
9497	9.15873	9649	9.17461	9787	9.18881	9907	9.20100		
9511	9.16020	9661	9.17585	9791	9.18922	9923	9.20261		
9521	9.16126	9677	9.17751	9803	9.19044	9929	9.20322		
9533	9.16251	9679	9.17771	9811	9.19126	9931	9.20342		
9539	9.16314	9689	9.17875	9817	9.19187	9941	9.20442		
9547	9.16398	9697	9.17957	9829	9.19309	9949	9.20523		
e^x	x	e^x	x	e^x	x	e^x	x	e^x	x

Coefficients for Computing,

$$F_{\pm n}=F_0\pm n\omega\left[F'_0\pm\frac{n}{2}\alpha_0+\frac{n^2}{6}\beta_0\pm\frac{n}{12}\left(\frac{n^2}{2}-1\right)\gamma_0\right].$$

n	$\frac{n^2}{6}$	Diff.	$\frac{n}{12}\left(\frac{n^2}{2}-1\right)$	Diff.	n	$\frac{n^2}{6}$	Diff.	$\frac{n}{12}\left(\frac{n^2}{2}-1\right)$	Diff.
0.00	+0.0000	0	—0.0000	8	0.25	+0.0104	9	—0.0202	7
.01	.0000	1	.0008	9	.26	.0113	9	.0209	8
.02	.0001	1	.0017	8	.27	.0122	9	.0217	7
.03	.0002	1	.0025	8	.28	.0131	9	.0224	8
.04	.0003	1	.0033	9	.29	.0140	10	.0232	7
0.05	+0.0004	2	+0.0042	8	0.30	+0.0150	10	—0.0239	7
.06	.0006	2	.0050	8	.31	.0160	11	.0246	7
.07	.0008	3	.0058	8	.32	.0171	11	.0253	7
.08	.0011	3	.0066	9	.33	.0182	11	.0260	7
.09	.0014	3	.0075	8	.34	.0193	11	.0267	7
0.10	+0.0017	3	—0.0083	8	0.35	+0.0204	12	—0.0274	7
.11	.0020	4	.0091	8	.36	.0216	12	.0281	6
.12	.0024	4	.0099	8	.37	.0228	13	.0287	7
.13	.0028	5	.0107	9	.38	.0241	13	.0294	6
.14	.0033	5	.0116	8	.39	.0254	13	.0300	7
0.15	+0.0038	5	—0.0124	8	0.40	+0.0267	13	—0.0307	6
.16	.0043	5	.0132	8	.41	.0280	14	.0313	6
.17	.0048	6	.0140	8	.42	.0294	14	.0319	6
.18	.0054	6	.0148	7	.43	.0308	15	.0325	6
.19	.0060	7	.0155	8	.44	.0323	15	.0331	6
0.20	+0.0067	7	—0.0163	8	0.45	+0.0338	15	—0.0337	6
.21	.0074	7	.0171	8	.46	.0353	15	.0343	5
.22	.0081	7	.0179	8	.47	.0368	16	.0348	6
.23	.0088	8	.0187	7	.48	.0384	16	.0354	5
.24	.0096	8	.0194	8	.49	.0400	17	.0359	6
0.25	+0.0104		—0.0202		0.50	+0.0417		—0.0365	

TABLE VI

THE GUDERMANNIAN

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
0.000	0.000 0000	1 0000	0 00 00.00	206.26	0.050	0.049 9792	9988	2 51 48.95	206.01
.001	.001 0000	1 0000	0 03 26.26	206.26	.051	.050 9779	9987	2 55 14.95	206.00
.002	.002 0000	1 0000	0 06 52.53	206.26	.052	.051 9766	9986	2 58 40.94	205.99
.003	.003 0000	1 0000	0 10 18.79	206.26	.053	.052 9752	9986	3 02 06.92	205.98
.004	.004 0000	1 0000	0 13 45.06	206.26	.054	.053 9738	9985	3 05 32.89	205.96
0.005	0.005 0000	1 0000	0 17 11.32	206.26	0.055	0.054 9723	9985	3 08 58.85	205.95
.006	.006 0000	1 0000	0 20 37.58	206.26	.056	.055 9708	9984	3 12 24.80	205.94
.007	.006 9999	1 0000	0 24 03.84	206.26	.057	.056 9692	9984	3 15 50.73	205.93
.008	.007 9999	1 0000	0 27 30.10	206.26	.058	.057 9675	9983	3 19 16.66	205.92
.009	.008 9999	1 0000	0 30 56.36	206.26	.059	.058 9658	9983	3 22 42.57	205.91
0.010	0.009 9998	9999	0 34 22.61	206.25	0.060	0.059 9640	9982	3 26 08.47	205.89
.011	.010 9998	9999	0 37 48.87	206.25	.061	.060 9622	9981	3 29 34.36	205.88
.012	.011 9997	9999	0 41 15.12	206.25	.062	.061 9603	9981	3 33 00.23	205.87
.013	.012 9996	9999	0 44 41.37	206.25	.063	.062 9584	9980	3 36 26.10	205.86
.014	.013 9995	9999	0 48 07.61	206.24	.064	.063 9564	9980	3 39 51.94	205.84
0.015	0.014 9994	9999	0 51 33.86	206.24	0.065	0.064 9543	9979	3 43 17.78	205.83
.016	.015 9993	9999	0 55 00.10	206.24	.066	.065 9521	9978	3 46 43.60	205.82
.017	.016 9992	9999	0 58 26.33	206.23	.067	.066 9499	9978	3 50 09.41	205.80
.018	.017 9990	9998	1 01 52.57	206.23	.068	.067 9477	9977	3 53 35.21	205.79
.019	.018 9989	9998	1 05 18.80	206.23	.069	.068 9453	9976	3 57 00.99	205.77
0.020	0.019 9987	9998	1 08 45.02	206.22	0.070	0.069 9429	9976	4 00 26.76	205.76
.021	.020 9985	9998	1 12 11.24	206.22	.071	.070 9404	9975	4 03 52.51	205.75
.022	.021 9982	9998	1 15 37.46	206.21	.072	.071 9379	9974	4 07 18.25	205.73
.023	.022 9980	9997	1 19 03.67	206.21	.073	.072 9352	9973	4 10 43.98	205.72
.024	.023 9977	9997	1 22 29.88	206.21	.074	.073 9326	9973	4 14 09.68	205.70
0.025	0.024 9974	9997	1 25 56.08	206.20	0.075	0.074 9298	9972	4 17 35.38	205.69
.026	.025 9971	9997	1 29 22.28	206.20	.076	.075 9269	9971	4 21 01.06	205.67
.027	.026 9967	9996	1 32 48.47	206.19	.077	.076 9240	9970	4 24 26.72	205.65
.028	.027 9963	9996	1 36 14.66	206.18	.078	.077 9210	9970	4 27 52.37	205.64
.029	.028 9959	9996	1 39 40.84	206.18	.079	.078 9180	9969	4 31 18.00	205.62
0.030	0.029 9955	9995	1 43 07.02	206.17	0.080	0.079 9148	9968	4 34 43.61	205.61
.031	.030 9950	9995	1 46 33.19	206.17	.081	.080 9116	9967	4 38 09.21	205.59
.032	.031 9945	9995	1 49 59.35	206.16	.082	.081 9083	9966	4 41 34.79	205.57
.033	.032 9940	9995	1 53 25.50	206.15	.083	.082 9049	9966	4 45 00.36	205.56
.034	.033 9935	9994	1 56 51.65	206.15	.084	.083 9014	9965	4 48 25.90	205.54
0.035	0.034 9929	9994	2 00 17.79	206.14	0.085	0.084 8978	9964	4 51 51.44	205.52
.036	.035 9922	9994	2 03 43.93	206.13	.086	.085 8942	9963	4 55 16.95	205.50
.037	.036 9916	9993	2 07 10.06	206.12	.087	.086 8905	9962	4 58 42.44	205.49
.038	.037 9909	9993	2 10 36.18	206.12	.088	.087 8866	9961	5 02 07.92	205.47
.039	.038 9901	9992	2 14 02.29	206.11	.089	.088 8827	9961	5 05 33.38	205.45
0.040	0.039 9893	9992	2 17 28.39	206.10	0.090	0.089 8787	9960	5 08 58.82	205.43
.041	.040 9885	9992	2 20 54.49	206.09	.091	.090 8747	9959	5 12 24.25	205.41
.042	.041 9877	9991	2 24 20.58	206.08	.092	.091 8705	9958	5 15 49.65	205.39
.043	.042 9868	9991	2 27 46.65	206.07	.093	.092 8662	9957	5 19 15.03	205.38
.044	.043 9858	9990	2 31 12.72	206.07	.094	.093 8619	9956	5 22 40.40	205.36
0.045	0.044 9848	9990	2 34 38.79	206.06	0.095	0.094 8574	9955	5 26 05.75	205.34
.046	.045 9838	9989	2 38 04.84	206.05	.096	.095 8529	9954	5 29 31.08	205.32
.047	.046 9827	9989	2 41 30.88	206.04	.097	.096 8482	9953	5 32 56.38	205.30
.048	.047 9816	9988	2 44 56.91	206.03	.098	.097 8435	9952	5 36 21.67	205.28
.049	.048 9804	9988	2 48 22.93	206.02	.099	.098 8387	0051	5 39 46.94	205.26
0.050	0.049 9792	9988	2 51 48.95	206.01	0.100	0.099 8337	9950	5 43 12.19	205.24
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90^\circ$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90^\circ$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
0.100	0.099 8337	9950	5 43 12.19	205.24	0.150	0.149 4406	9889	8 33 44.35	203.97
.101	.100 8287	9949	5 46 37.42	205.22	.151	.150 4294	9887	8 37 08.30	203.94
.102	.101 8236	9948	5 50 02.62	205.20	.152	.151 4181	9886	8 40 32.22	203.90
.103	.102 8184	9947	5 53 27.81	205.18	.153	.152 4065	9884	8 43 56.11	203.87
.104	.103 8130	9946	5 56 52.97	205.15	.154	.153 3949	9883	8 47 19.96	203.84
0.105	0.104 8076	9945	6 00 18.12	205.13	0.155	0.154 3831	9881	8 50 43.79	203.81
.106	.105 8021	9944	6 03 43.24	205.11	.156	.155 3711	9880	8 54 07.59	203.78
.107	.106 7964	9943	6 07 08.34	205.09	.157	.156 3590	9878	8 57 31.35	203.75
.108	.107 7907	9942	6 10 33.42	205.07	.158	.157 3467	9876	9 00 55.08	203.72
.109	.108 7848	9941	6 13 58.48	205.05	.159	.158 3343	9875	9 04 18.78	203.68
0.110	0.109 7788	9940	6 17 23.51	205.02	0.160	0.159 3217	9873	9 07 42.45	203.65
.111	.110 7728	9939	6 20 48.52	205.00	.161	.160 3089	9872	9 11 06.09	203.62
.112	.111 7666	9938	6 24 13.51	204.98	.162	.161 2960	9870	9 14 29.69	203.59
.113	.112 7603	9936	6 27 38.48	204.95	.163	.162 2830	9869	9 17 53.26	203.55
.114	.113 7539	9935	6 31 03.42	204.93	.164	.163 2697	9867	9 21 16.80	203.52
0.115	0.114 7474	9934	6 34 28.34	204.91	0.165	0.164 2564	9865	9 24 40.31	203.49
.116	.115 7407	9933	6 37 53.24	204.88	.166	.165 2428	9864	9 28 03.78	203.46
.117	.116 7340	9932	6 41 18.11	204.86	.167	.166 2291	9862	9 31 27.22	203.42
.118	.117 7271	9931	6 44 42.96	204.84	.168	.167 2153	9861	9 34 50.62	203.39
.119	.118 7201	9930	6 48 07.78	204.81	.169	.168 2012	9859	9 38 13.99	203.35
0.120	0.119 7130	9928	6 51 32.59	204.79	0.170	0.169 1870	9857	9 41 37.33	203.32
.121	.120 7058	9927	6 54 57.36	204.76	.171	.170 1727	9856	9 45 00.63	203.29
.122	.121 6985	9926	6 58 22.11	204.74	.172	.171 1581	9854	9 48 23.90	203.25
.123	.122 6910	9925	7 01 46.84	204.71	.173	.172 1434	9852	9 51 47.14	203.22
.124	.123 6834	9924	7 05 11.54	204.69	.174	.173 1286	9851	9 55 10.33	203.18
0.125	0.124 6757	9922	7 08 36.22	204.66	0.175	0.174 1136	9849	9 58 33.50	203.15
.126	.125 6679	9921	7 12 00.87	204.64	.176	.175 0983	9847	10 01 56.63	203.11
.127	.126 6600	9920	7 15 25.49	204.61	.177	.176 0830	9845	10 05 19.72	203.08
.128	.127 6519	9919	7 18 50.09	204.59	.178	.177 0674	9844	10 08 42.78	203.04
.129	.128 6437	9917	7 22 14.67	204.56	.179	.178 0517	9842	10 12 05.80	203.00
0.130	0.129 6354	9916	7 25 39.22	204.53	0.180	0.179 0358	9840	10 15 28.78	202.97
.131	.130 6269	9915	7 29 03.74	204.51	.181	.180 0197	9838	10 18 51.73	202.93
.132	.131 6183	9913	7 32 28.23	204.48	.182	.181 0035	9837	10 22 14.65	202.90
.133	.132 6096	9912	7 35 52.70	204.45	.183	.181 9871	9835	10 25 37.52	202.86
.134	.133 6008	9911	7 39 17.14	204.43	.184	.182 9705	9833	10 29 00.36	202.82
0.135	0.134 5918	9910	7 42 41.55	204.40	0.185	0.183 9537	9831	10 32 23.17	202.78
.136	.135 5827	9908	7 46 05.94	204.37	.186	.184 9367	9829	10 35 45.93	202.75
.137	.136 5734	9907	7 49 30.29	204.34	.187	.185 9196	9828	10 39 08.66	202.71
.138	.137 5641	9906	7 52 54.62	204.32	.188	.186 9022	9826	10 42 31.35	202.67
.139	.138 5545	9904	7 56 18.93	204.29	.189	.187 8847	9824	10 45 54.01	202.63
0.140	0.139 5449	9903	7 59 43.20	204.26	0.190	0.188 8670	9822	10 49 16.62	202.60
.141	.140 5351	9901	8 03 07.45	204.23	.191	.189 8492	9820	10 52 39.20	202.56
.142	.141 5252	9900	8 06 31.66	204.20	.192	.190 8311	9818	10 56 01.74	202.52
.143	.142 5151	9899	8 09 55.85	204.17	.193	.191 8129	9817	10 59 24.24	202.48
.144	.143 5049	9897	8 13 20.01	204.14	.194	.192 7944	9815	11 02 46.71	202.44
0.145	0.144 4946	9896	8 16 44.14	204.12	0.195	0.193 7758	9813	11 06 09.13	202.40
.146	.145 4841	9894	8 20 08.24	204.09	.196	.194 7570	9811	11 09 31.51	202.37
.147	.146 4734	9893	8 23 32.31	204.06	.197	.195 7380	9809	11 12 53.86	202.33
.148	.147 4626	9891	8 26 56.35	204.03	.198	.196 7188	9807	11 16 16.17	202.29
.149	.148 4517	9890	8 30 20.36	204.00	.199	.197 6994	9805	11 19 38.43	202.25
0.150	0.149 4406	9889	8 33 44.35	203.97	0.200	0.198 6798	9803	11 23 00.66	202.21
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
0.200	0.198 6798	9803	11 23 00.66	202.21	0.250	0.247 4358	9695	14 10 37.30	199.98
.201	.199 6601	9801	11 26 22.85	202.17	.251	.248 4052	9693	14 13 57.26	199.93
.202	.200 6401	9799	11 29 44.99	202.13	.252	.249 3744	9691	14 17 17.16	199.88
.203	.201 6200	9797	11 33 07.10	202.09	.253	.250 3434	9688	14 20 37.02	199.84
.204	.202 5996	9795	11 36 29.17	202.05	.254	.251 3121	9686	14 23 56.83	199.79
0.205	0.203 5790	9794	11 39 51.19	202.01	0.255	0.252 2805	9683	14 27 16.59	199.74
.206	.204 5583	9792	11 43 13.18	201.96	.256	.253 2488	9681	14 30 36.31	199.69
.207	.205 5374	9790	11 46 35.12	201.92	.257	.254 2167	9679	14 33 55.97	199.64
.208	.206 5162	9788	11 49 57.02	201.88	.258	.255 1845	9676	14 37 15.58	199.59
.209	.207 4949	9786	11 53 18.89	201.84	.259	.256 1520	9674	14 40 35.14	199.53
0.210	0.208 4733	9783	11 56 40.71	201.80	0.260	0.257 1192	9671	14 43 54.65	199.48
.211	.209 4515	9781	12 00 02.48	201.76	.261	.258 0862	9669	14 47 14.10	199.43
.212	.210 4296	9779	12 03 24.22	201.71	.262	.259 0530	9666	14 50 33.51	199.38
.213	.211 4074	9777	12 06 45.91	201.67	.263	.260 0195	9664	14 53 52.87	199.33
.214	.212 3851	9775	12 10 07.56	201.63	.264	.260 9857	9661	14 57 12.18	199.29
0.215	0.213 3625	9773	12 13 29.17	201.59	0.265	0.261 9518	9659	15 00 31.43	199.24
.216	.214 3397	9771	12 16 50.74	201.54	.266	.262 9175	9656	15 03 50.63	199.19
.217	.215 3167	9769	12 20 12.26	201.50	.267	.263 8830	9654	15 07 09.78	199.13
.218	.216 2935	9767	12 23 33.74	201.46	.268	.264 8483	9651	15 10 28.88	199.08
.219	.217 2701	9765	12 26 55.18	201.42	.269	.265 8133	9649	15 13 47.93	199.03
0.220	0.218 2465	9763	12 30 16.57	201.37	0.270	0.266 7781	9646	15 17 06.92	198.98
.221	.219 2227	9761	12 33 37.92	201.33	.271	.267 7425	9644	15 20 25.86	198.93
.222	.220 1986	9759	12 36 59.23	201.28	.272	.268 7068	9641	15 23 44.75	198.87
.223	.221 1744	9756	12 40 20.49	201.24	.273	.269 6708	9639	15 27 03.59	198.82
.224	.222 1499	9754	12 43 41.71	201.20	.274	.270 6345	9636	15 30 22.37	198.77
0.225	0.223 1252	9752	12 47 02.88	201.15	0.275	0.271 5980	9633	15 33 41.10	198.71
.226	.224 1003	9750	12 50 24.01	201.11	.276	.272 5612	9631	15 36 59.78	198.66
.227	.225 0752	9748	12 53 45.10	201.06	.277	.273 5242	9628	15 40 18.41	198.61
.228	.226 0499	9746	12 57 06.14	201.02	.278	.274 4868	9626	15 43 36.98	198.55
.229	.227 0243	9743	13 00 27.13	200.97	.279	.275 4493	9623	15 46 55.49	198.50
0.230	0.227 9986	9741	13 03 48.08	200.93	0.280	0.276 4114	9620	15 50 13.95	198.45
.231	.228 9726	9739	13 07 08.99	200.88	.281	.277 3734	9618	15 53 32.36	198.38
.232	.229 9464	9737	13 10 29.85	200.84	.282	.278 3350	9615	15 56 50.72	198.33
.233	.230 9199	9735	13 13 50.66	200.79	.283	.279 2964	9612	16 00 09.02	198.27
.234	.231 8933	9732	13 17 11.42	200.74	.284	.280 2575	9610	16 03 27.26	198.22
0.235	0.232 8664	9730	13 20 32.15	200.70	0.285	0.281 2184	9607	16 06 45.45	198.16
.236	.233 8393	9728	13 23 52.82	200.65	.286	.282 1789	9604	16 10 03.58	198.11
.237	.234 8120	9726	13 27 13.45	200.60	.287	.283 1393	9602	16 13 21.66	198.05
.238	.235 7844	9723	13 30 34.03	200.56	.288	.284 0993	9599	16 16 39.69	198.00
.239	.236 7566	9721	13 33 54.56	200.51	.289	.285 0591	9596	16 19 57.66	197.94
0.240	0.237 7286	9719	13 37 15.05	200.46	0.290	0.286 0186	9594	16 23 15.57	197.89
.241	.238 7004	9716	13 40 35.49	200.42	.291	.286 9778	9591	16 26 33.43	197.83
.242	.239 6719	9714	13 43 55.88	200.37	.292	.287 9368	9588	16 29 51.23	197.77
.243	.240 6432	9712	13 47 16.23	200.32	.293	.288 8955	9586	16 33 08.97	197.72
.244	.241 6143	9710	13 50 36.53	200.27	.294	.289 8539	9583	16 36 26.66	197.66
0.245	0.242 5851	9707	13 53 56.77	200.23	0.295	0.290 8121	9580	16 39 44.30	197.60
.246	.243 5557	9705	13 57 16.98	200.18	.296	.291 7699	9577	16 43 01.87	197.55
.247	.244 5261	9703	14 00 37.13	200.13	.297	.292 7275	9575	16 46 19.39	197.49
.248	.245 4962	9700	14 03 57.23	200.08	.298	.293 6849	9572	16 49 36.85	197.43
.249	.246 4661	9698	14 07 17.29	200.03	.299	.294 6419	9569	16 52 54.26	197.38
0.250	0.247 4358	9695	14 10 37.30	199.98	0.300	0.295 5987	9566	16 56 11.60	197.32
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
0.300	0.295 5987	9566	16 56 11.60	197.32	0.350	0.343 0655	9417	19 39 22.34	194.25
.301	.296 5552	9563	16 59 28.89	197.26	.351	.344 0071	9414	19 42 36.55	194.18
.302	.297 5114	9561	17 02 46.13	197.20	.352	.344 9483	9411	19 45 50.70	194.11
.303	.298 4673	9558	17 06 03.30	197.15	.353	.345 8893	9408	19 49 04.78	194.05
.304	.299 4229	9555	17 09 20.42	197.09	.354	.346 8299	9405	19 52 18.80	193.98
0.305	0.300 3783	9552	17 12 37.48	197.03	0.355	0.347 7702	9401	19 55 32.75	193.92
.306	.301 3334	9549	17 15 54.48	196.97	.356	.348 7101	9398	19 58 46.63	193.85
.307	.302 2882	9547	17 19 11.42	196.91	.357	.349 6498	9395	20 02 00.45	193.78
.308	.303 2427	9544	17 22 28.30	196.85	.358	.350 5891	9392	20 05 14.20	193.72
.309	.304 1969	9541	17 25 45.12	196.79	.359	.351 5281	9388	20 08 27.88	193.65
0.310	0.305 1509	9538	17 29 01.89	196.74	0.360	0.352 4668	9385	20 11 41.50	193.58
.311	.306 1045	9535	17 32 18.60	196.68	.361	.353 4052	9382	20 14 55.05	193.52
.312	.307 0579	9532	17 35 35.24	196.62	.362	.354 3432	9378	20 18 08.54	193.45
.313	.308 0110	9529	17 38 51.83	196.56	.363	.355 2809	9375	20 21 21.95	193.38
.314	.308 9638	9526	17 42 08.36	196.50	.364	.356 2183	9372	20 24 35.30	193.32
0.315	0.309 9163	9524	17 45 24.83	196.44	0.365	0.357 1554	9369	20 27 48.59	193.25
.316	.310 8685	9521	17 48 41.23	196.38	.366	.358 0921	9366	20 31 01.80	193.18
.317	.311 8204	9518	17 51 57.58	196.32	.367	.359 0285	9362	20 34 14.95	193.11
.318	.312 7721	9515	17 55 13.87	196.26	.368	.359 9646	9359	20 37 28.03	193.05
.319	.313 7234	9512	17 58 30.10	196.20	.369	.360 9003	9356	20 40 41.04	192.98
0.320	0.314 6744	9509	18 01 46.26	196.14	0.370	0.361 8358	9352	20 43 53.98	192.91
.321	.315 6252	9506	18 05 02.37	196.08	.371	.362 7708	9349	20 47 06.86	192.84
.322	.316 5757	9503	18 08 18.42	196.01	.372	.363 7056	9346	20 50 19.66	192.77
.323	.317 5258	9500	18 11 34.40	195.95	.373	.364 6400	9343	20 53 32.40	192.70
.324	.318 4757	9497	18 14 50.32	195.89	.374	.365 5741	9339	20 56 45.07	192.63
0.325	0.319 4252	9494	18 18 06.19	195.83	0.375	0.366 5078	9336	20 59 57.67	192.57
.326	.320 3745	9491	18 21 21.99	195.77	.376	.367 4413	9332	21 03 10.20	192.50
.327	.321 3235	9488	18 24 37.72	195.71	.377	.368 3743	9329	21 06 22.66	192.43
.328	.322 2721	9485	18 27 53.40	195.65	.378	.369 3071	9326	21 09 35.05	192.36
.329	.323 2205	9482	18 31 09.02	195.58	.379	.370 2395	9322	21 12 47.38	192.29
0.330	0.324 1686	9479	18 34 24.57	195.52	0.380	0.371 1716	9319	21 15 59.63	192.22
.331	.325 1163	9476	18 37 40.06	195.46	.381	.372 1033	9316	21 19 11.82	192.15
.332	.326 0638	9473	18 40 55.49	195.40	.382	.373 0347	9312	21 22 23.93	192.08
.333	.327 0110	9470	18 44 10.85	195.33	.383	.373 9658	9309	21 25 35.97	192.01
.334	.327 9578	9467	18 47 26.16	195.27	.384	.374 8965	9305	21 28 47.95	191.94
0.335	0.328 9044	9464	18 50 41.40	195.21	0.385	0.375 8268	9302	21 31 59.85	191.87
.336	.329 8506	9461	18 53 56.57	195.15	.386	.376 7569	9299	21 35 11.68	191.80
.337	.330 7965	9458	18 57 11.69	195.08	.387	.377 6866	9295	21 38 23.45	191.73
.338	.331 7422	9455	19 00 26.74	195.02	.388	.378 6159	9292	21 41 35.14	191.66
.339	.332 6875	9452	19 03 41.72	194.95	.389	.379 5449	9288	21 44 46.76	191.59
0.340	0.333 6325	9449	19 06 56.65	194.89	0.390	0.380 4736	9285	21 47 58.31	191.51
.341	.334 5772	9445	19 10 11.50	194.83	.391	.381 4019	9281	21 51 09.79	191.44
.342	.335 5216	9442	19 13 26.30	194.76	.392	.382 3299	9278	21 54 21.20	191.37
.343	.336 4657	9439	19 16 41.03	194.70	.393	.383 2575	9275	21 57 32.53	191.30
.344	.337 4095	9436	19 19 55.70	194.63	.394	.384 1848	9271	22 00 43.80	191.23
0.345	0.338 3529	9433	19 23 10.30	194.57	0.395	0.385 1117	9268	22 03 54.99	191.16
.346	.339 2961	9430	19 26 24.84	194.51	.396	.386 0383	9264	22 07 06.11	191.09
.347	.340 2389	9427	19 29 39.31	194.44	.397	.386 9645	9261	22 10 17.16	191.01
.348	.341 1814	9424	19 32 53.72	194.38	.398	.387 8904	9257	22 13 28.14	190.94
.349	.342 1236	9420	19 36 08.06	194.31	.399	.388 8159	9254	22 16 39.04	190.87
0.350	0.343 0655	9417	19 39 22.34	194.25	0.400	0.389 7411	9250	22 19 49.88	190.80
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
0.400	0.389 7411	9250	22 19 49.88	190.80	0.450	0.435 5388	9066	24 57 16.34	187.01
.401	.390 6660	9247	22 23 00.64	190.72	.451	.436 4453	9063	25 00 23.31	186.93
.402	.391 5904	9243	22 26 11.32	190.65	.452	.437 3514	9059	25 03 30.20	186.85
.403	.392 5146	9240	22 29 21.94	190.58	.453	.438 2571	9055	25 06 37.01	186.77
.404	.393 4383	9236	22 32 32.48	190.51	.454	.439 1624	9051	25 09 43.74	186.69
0.405	0.394 3618	9232	22 35 42.95	190.43	0.455	0.440 0673	9047	25 12 50.39	186.61
.406	.395 2848	9229	22 38 53.35	190.36	.456	.440 9718	9043	25 15 56.96	186.53
.407	.396 2075	9225	22 42 03.67	190.29	.457	.441 8759	9040	25 19 03.46	186.45
.408	.397 1299	9222	22 45 13.92	190.21	.458	.442 7797	9036	25 22 09.87	186.37
.409	.398 0519	9218	22 48 24.09	190.14	.459	.443 6831	9032	25 25 16.20	186.29
0.410	0.398 9735	9215	22 51 34.19	190.06	0.460	0.444 5861	9028	25 28 22.46	186.21
.411	.399 8948	9211	22 54 44.22	189.99	.461	.445 4886	9024	25 31 28.63	186.13
.412	.400 8157	9207	22 57 54.18	189.92	.462	.446 3909	9020	25 34 34.72	186.05
.413	.401 7363	9204	23 01 04.06	189.84	.463	.447 2927	9016	25 37 40.74	185.97
.414	.402 6565	9200	23 04 13.86	189.77	.464	.448 1941	9012	25 40 46.67	185.89
0.415	0.403 5763	9197	23 07 23.59	189.69	0.465	0.449 0951	9008	25 43 52.52	185.81
.416	.404 4958	9193	23 10 33.25	189.62	.466	.449 9958	9004	25 46 58.29	185.73
.417	.405 4149	9189	23 13 42.83	189.54	.467	.450 8960	9001	25 50 03.98	185.65
.418	.406 3337	9186	23 16 52.34	189.47	.468	.451 7959	8997	25 53 09.59	185.57
.419	.407 2521	9182	23 20 01.77	189.39	.469	.452 6954	8993	25 56 15.12	185.49
0.420	0.408 1701	9178	23 23 11.13	189.32	0.470	0.453 5944	8989	25 59 20.57	185.41
.421	.409 0878	9175	23 26 20.41	189.24	.471	.454 4931	8985	26 02 25.93	185.33
.422	.410 0051	9171	23 29 29.62	189.17	.472	.455 3914	8981	26 05 31.22	185.24
.423	.410 9220	9168	23 32 38.75	189.09	.473	.456 2893	8977	26 08 36.42	185.16
.424	.411 8386	9164	23 35 47.81	189.02	.474	.457 1868	8973	26 11 41.54	185.08
0.425	0.412 7548	9160	23 38 56.79	188.94	0.475	0.458 0839	8969	26 14 46.58	185.00
.426	.413 6706	9157	23 42 05.69	188.87	.476	.458 9806	8965	26 17 51.54	184.92
.427	.414 5861	9153	23 45 14.52	188.79	.477	.459 8769	8961	26 20 56.42	184.84
.428	.415 5012	9149	23 48 23.27	188.71	.478	.460 7728	8957	26 24 01.21	184.75
.429	.416 4159	9145	23 51 31.95	188.64	.479	.461 6683	8953	26 27 05.93	184.67
0.430	0.417 3303	9142	23 54 40.55	188.56	0.480	0.462 5634	8949	26 30 10.56	184.59
.431	.418 2443	9138	23 57 49.07	188.49	.481	.463 4581	8945	26 33 15.10	184.51
.432	.419 1579	9134	24 00 57.52	188.41	.482	.464 3524	8941	26 36 19.57	184.42
.433	.420 0711	9131	24 04 05.89	188.33	.483	.465 2464	8937	26 39 23.95	184.34
.434	.420 9840	9127	24 07 14.18	188.26	.484	.466 1399	8933	26 42 28.25	184.26
0.435	0.421 8965	9123	24 10 22.40	188.18	0.485	0.467 0330	8929	26 45 32.47	184.18
.436	.422 8086	9119	24 13 30.54	188.10	.486	.467 9257	8925	26 48 36.60	184.09
.437	.423 7204	9116	24 16 38.60	188.02	.487	.468 8180	8921	26 51 40.65	184.01
.438	.424 6318	9112	24 19 46.59	187.95	.488	.469 7099	8917	26 54 44.62	183.93
.439	.425 5428	9108	24 22 54.50	187.87	.489	.470 6014	8913	26 57 48.50	183.84
0.440	0.426 4534	9104	24 26 02.33	187.79	0.490	0.471 4925	8909	27 00 52.31	183.76
.441	.427 3636	9101	24 29 10.08	187.71	.491	.472 3832	8905	27 03 56.02	183.68
.442	.428 2735	9097	24 32 17.75	187.64	.492	.473 2735	8901	27 06 59.66	183.59
.443	.429 1830	9093	24 35 25.35	187.56	.493	.474 1633	8897	27 10 03.21	183.51
.444	.430 0921	9089	24 38 32.87	187.48	.494	.475 0528	8893	27 13 06.68	183.42
0.445	0.431 0009	9085	24 41 40.31	187.40	0.495	0.475 9419	8889	27 16 10.06	183.34
.446	.431 9092	9082	24 44 47.67	187.32	.496	.476 8305	8885	27 19 13.36	183.26
.447	.432 8172	9078	24 47 54.96	187.24	.497	.477 7188	8880	27 22 16.57	183.17
.448	.433 7248	9074	24 51 02.16	187.17	.498	.478 6066	8876	27 25 19.70	183.09
.449	.434 6320	9070	24 54 09.29	187.09	.499	.479 4941	8872	27 28 22.75	183.00
0.450	0.435 5388	9066	24 57 16.34	187.01	0.500	0.480 3811	8868	27 31 25.71	182.92
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
0.500	0.480 3811	8868	27 31 25.71	182.92	0.550	0.524 1996	8657	30 02 03.92	178.57
.501	.481 2677	8864	27 34 28.59	182.83	.551	.525 0651	8653	30 05 02.45	178.48
.502	.482 1539	8860	27 37 31.38	182.75	.552	.525 9302	8649	30 08 00.88	178.39
.503	.483 0397	8856	27 40 34.09	182.67	.553	.526 7948	8644	30 10 59.23	178.30
.504	.483 9251	8852	27 43 36.71	182.58	.554	.527 6590	8640	30 13 57.48	178.21
0.505	0.484 8100	8848	27 46 39.25	182.50	0.555	0.528 5228	8636	30 16 55.65	178.12
.506	.485 6946	8844	27 49 41.70	182.41	.556	.529 3861	8631	30 19 53.72	178.03
.507	.486 5787	8839	27 52 44.07	182.33	.557	.530 2490	8627	30 22 51.71	177.94
.508	.487 4625	8835	27 55 46.35	182.24	.558	.531 1115	8622	30 25 49.60	177.85
.509	.488 3458	8831	27 58 48.55	182.15	.559	.531 9735	8618	30 28 47.41	177.76
0.510	0.489 2287	8827	28 01 50.66	182.07	0.560	0.532 8351	8614	30 31 45.12	177.67
.511	.490 1112	8823	28 04 52.69	181.98	.561	.533 6962	8609	30 34 42.75	177.58
.512	.490 9933	8819	28 07 54.63	181.90	.562	.534 5569	8605	30 37 40.28	177.49
.513	.491 8749	8814	28 10 56.48	181.81	.563	.535 4172	8601	30 40 37.73	177.40
.514	.492 7562	8810	28 13 58.25	181.73	.564	.536 2771	8596	30 43 35.08	177.31
0.515	0.493 6370	8806	28 16 59.94	181.64	0.565	0.537 1365	8592	30 46 32.35	177.22
.516	.494 5174	8802	28 20 01.53	181.55	.566	.537 9954	8587	30 49 29.52	177.13
.517	.495 3974	8798	28 23 03.04	181.47	.567	.538 8539	8583	30 52 26.60	177.04
.518	.496 2769	8794	28 26 04.47	181.38	.568	.539 7120	8579	30 55 23.59	176.95
.519	.497 1561	8789	28 29 05.81	181.29	.569	.540 5696	8574	30 58 20.49	176.85
0.520	0.498 0348	8785	28 32 07.06	181.21	0.570	0.541 4268	8570	31 01 17.30	176.76
.521	.498 9131	8781	28 35 08.22	181.12	.571	.542 2836	8565	31 04 14.02	176.67
.522	.499 7910	8777	28 38 09.30	181.04	.572	.543 1399	8561	31 07 10.65	176.58
.523	.500 6685	8773	28 41 10.29	180.95	.573	.543 9958	8556	31 10 07.18	176.49
.524	.501 5456	8768	28 44 11.20	180.86	.574	.544 8512	8552	31 13 03.63	176.40
0.525	0.502 4222	8764	28 47 12.01	180.77	0.575	0.545 7062	8548	31 15 59.98	176.31
.526	.503 2984	8760	28 50 12.75	180.69	.576	.546 5607	8543	31 18 56.24	176.22
.527	.504 1742	8756	28 53 13.39	180.60	.577	.547 4148	8539	31 21 52.41	176.12
.528	.505 0495	8752	28 56 13.95	180.51	.578	.548 2685	8534	31 24 48.49	176.03
.529	.505 9245	8747	28 59 14.41	180.43	.579	.549 1217	8530	31 27 44.47	175.94
0.530	0.506 7990	8743	29 02 14.80	180.34	0.580	0.549 9744	8525	31 30 40.37	175.85
.531	.507 6731	8739	29 05 15.09	180.25	.581	.550 8267	8521	31 33 36.17	175.76
.532	.508 5468	8735	29 08 15.30	180.16	.582	.551 6786	8516	31 36 31.88	175.66
.533	.509 4200	8730	29 11 15.42	180.07	.583	.552 5300	8512	31 39 27.50	175.57
.534	.510 2928	8726	29 14 15.45	179.99	.584	.553 3810	8508	31 42 23.03	175.48
0.535	0.511 1652	8722	29 17 15.39	179.90	0.585	0.554 2315	8503	31 45 18.46	175.39
.536	.512 0372	8717	29 20 15.24	179.81	.586	.555 0816	8499	31 48 13.80	175.30
.537	.512 9087	8713	29 23 15.01	179.72	.587	.555 9313	8494	31 51 09.05	175.20
.538	.513 7798	8709	29 26 14.69	179.63	.588	.556 7804	8490	31 54 04.21	175.11
.539	.514 6505	8705	29 29 14.28	179.55	.589	.557 6292	8485	31 56 59.27	175.02
0.540	0.515 5207	8700	29 32 13.78	179.46	0.590	0.558 4775	8481	31 59 54.25	174.93
.541	.516 3905	8696	29 35 13.20	179.37	.591	.559 3253	8476	32 02 49.13	174.83
.542	.517 2599	8692	29 38 12.52	179.28	.592	.560 1727	8472	32 05 43.91	174.74
.543	.518 1289	8687	29 41 11.76	179.19	.593	.561 0196	8467	32 08 38.61	174.65
.544	.518 9974	8683	29 44 10.91	179.10	.594	.561 8661	8463	32 11 33.21	174.55
0.545	0.519 8655	8679	29 47 09.96	179.01	0.595	0.562 7122	8458	32 14 27.71	174.46
.546	.520 7332	8675	29 50 08.93	178.93	.596	.563 5577	8454	32 17 22.13	174.37
.547	.521 6004	8670	29 53 07.81	178.84	.597	.564 4029	8449	32 20 16.45	174.27
.548	.522 4673	8666	29 56 06.61	178.75	.598	.565 2476	8445	32 23 10.68	174.18
.549	.523 3336	8662	29 59 05.31	178.66	.599	.566 0918	8440	32 26 04.81	174.09
0.550	0.524 1996	8657	30 02 03.92	178.57	0.600	0.566 9356	8436	32 28 58.85	173.99
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
0.600	0.566 9356	8436	32 28 58.85	173.99	0.650	0.608 5398	8205	34 52 00.34	169.24
.601	.567 7789	8431	32 31 52.80	173.90	.651	.609 3600	8200	34 54 49.52	169.14
.602	.568 6218	8426	32 34 46.66	173.81	.652	.610 1798	8195	34 57 38.62	169.04
.603	.569 4642	8422	32 37 40.42	173.71	.653	.610 9991	8191	35 00 27.61	168.95
.604	.570 3061	8417	32 40 34.09	173.62	.654	.611 8179	8186	35 03 16.51	168.85
0.605	0.571 1476	8413	32 43 27.66	173.53	0.655	0.612 6363	8181	35 06 05.31	168.75
.606	.571 9887	8408	32 46 21.14	173.43	.656	.613 4542	8177	35 08 54.01	168.66
.607	.572 8293	8404	32 49 14.52	173.34	.657	.614 2716	8172	35 11 42.62	168.56
.608	.573 6694	8399	32 52 07.82	173.24	.658	.615 0886	8167	35 14 31.13	168.46
.609	.574 5091	8395	32 55 01.01	173.15	.659	.615 9051	8163	35 17 19.54	168.36
0.610	0.575 3484	8390	32 57 54.12	173.06	0.660	0.616 7211	8158	35 20 07.86	168.27
.611	.576 1871	8385	33 00 47.13	172.96	.661	.617 5366	8153	35 22 56.08	168.17
.612	.577 0255	8381	33 03 40.04	172.87	.662	.618 3517	8148	35 25 44.20	168.07
.613	.577 8633	8376	33 06 32.86	172.77	.663	.619 1663	8144	35 28 32.22	167.97
.614	.578 7007	8372	33 09 25.59	172.68	.664	.619 9804	8139	35 31 20.14	167.88
0.615	0.579 5377	8367	33 12 18.22	172.59	0.665	0.620 7941	8134	35 34 07.97	167.78
.616	.580 3741	8363	33 15 10.76	172.49	.666	.621 6073	8129	35 36 55.70	167.68
.617	.581 2102	8358	33 18 03.20	172.40	.667	.622 4200	8125	35 39 43.34	167.58
.618	.582 0457	8353	33 20 55.55	172.30	.668	.623 2322	8120	35 42 30.87	167.49
.619	.582 8809	8349	33 23 47.81	172.21	.669	.624 0440	8115	35 45 18.31	167.39
0.620	0.583 7155	8344	33 26 39.97	172.11	0.670	0.624 8553	8110	35 48 05.65	167.29
.621	.584 5497	8340	33 29 32.03	172.02	.671	.625 6661	8106	35 50 52.89	167.19
.622	.585 3834	8335	33 32 24.00	171.92	.672	.626 4764	8101	35 53 40.03	167.09
.623	.586 2167	8330	33 35 15.87	171.83	.673	.627 2863	8096	35 56 27.08	167.00
.624	.587 0495	8326	33 38 07.65	171.73	.674	.628 0956	8091	35 59 14.03	166.90
0.625	0.587 8819	8321	33 40 59.34	171.64	0.675	0.628 9046	8087	36 02 00.88	166.80
.626	.588 7137	8317	33 43 50.93	171.54	.676	.629 7130	8082	36 04 47.63	166.70
.627	.589 5452	8312	33 46 42.42	171.45	.677	.630 5209	8077	36 07 34.28	166.60
.628	.590 3761	8307	33 49 33.82	171.35	.678	.631 3284	8072	36 10 20.84	166.51
.629	.591 2066	8303	33 52 25.12	171.26	.679	.632 1354	8068	36 13 07.29	166.41
0.630	0.592 0367	8298	33 55 16.33	171.16	0.680	0.632 9420	8063	36 15 53.65	166.31
.631	.592 8662	8293	33 58 07.44	171.06	.681	.633 7480	8058	36 18 39.91	166.21
.632	.593 6954	8289	34 00 58.46	170.97	.682	.634 5536	8053	36 21 26.07	166.11
.633	.594 5240	8284	34 03 49.38	170.87	.683	.635 3587	8049	36 24 12.14	166.01
.634	.595 3522	8280	34 06 40.20	170.78	.684	.636 1633	8044	36 26 58.10	165.92
0.635	0.596 1799	8275	34 09 30.93	170.68	0.685	0.636 9675	8039	36 29 43.97	165.82
.636	.597 0072	8270	34 12 21.56	170.59	.686	.637 7711	8034	36 32 29.74	165.72
.637	.597 8339	8266	34 15 12.10	170.49	.687	.638 5743	8029	36 35 15.41	165.62
.638	.598 6603	8261	34 18 02.54	170.39	.688	.639 3770	8025	36 38 00.98	165.52
.639	.599 4861	8256	34 20 52.89	170.30	.689	.640 1792	8020	36 40 46.45	165.42
0.640	0.600 3115	8252	34 23 43.14	170.20	0.690	0.640 9810	8015	36 43 31.82	165.32
.641	.601 1364	8247	34 26 33.29	170.11	.691	.641 7823	8010	36 46 17.09	165.22
.642	.601 9609	8242	34 29 23.35	170.01	.692	.642 5830	8006	36 49 02.27	165.13
.643	.602 7849	8238	34 32 13.31	169.91	.693	.643 3834	8001	36 51 47.34	165.03
.644	.603 6084	8233	34 35 03.17	169.82	.694	.644 1832	7996	36 54 32.32	164.93
0.645	0.604 4315	8228	34 37 52.94	169.72	0.695	0.644 9825	7991	36 57 17.20	164.83
.646	.605 2541	8224	34 40 42.61	169.62	.696	.645 7814	7986	37 00 01.98	164.73
.647	.606 0762	8219	34 43 32.19	169.53	.697	.646 5798	7981	37 02 46.66	164.63
.648	.606 8979	8214	34 46 21.67	169.43	.698	.647 3777	7977	37 05 31.24	164.53
.649	.607 7190	8210	34 49 11.05	169.33	.699	.648 1751	7972	37 08 15.72	164.43
0.650	0.608 5398	8205	34 52 00.34	169.24	0.700	0.648 9721	7967	37 11 00.10	164.33
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
0.700	0.648 9721	7967	37 11 00.10	164.33	0.750	0.688 2014	7724	39 25 51.72	159.32
.701	.649 7685	7962	37 13 44.38	164.23	.751	.688 9735	7719	39 28 30.98	159.22
.702	.650 5645	7957	37 16 28.57	164.13	.752	.689 7451	7714	39 31 10.15	159.11
.703	.651 3600	7953	37 19 12.65	164.03	.753	.690 5163	7709	39 33 49.21	159.01
.704	.652 1550	7948	37 21 56.63	163.93	.754	.691 2870	7704	39 36 28.18	158.91
0.705	0.652 9496	7943	37 24 40.52	163.84	0.755	0.692 0572	7699	39 39 07.04	158.81
.706	.653 7436	7938	37 27 24.31	163.74	.756	.692 8269	7694	39 41 45.80	158.71
.707	.654 5372	7933	37 30 07.99	163.64	.757	.693 5961	7690	39 44 24.46	158.61
.708	.655 3303	7928	37 32 51.58	163.54	.758	.694 3648	7685	39 47 03.01	158.51
.709	.656 1229	7924	37 35 35.06	163.44	.759	.695 1330	7680	39 49 41.47	158.40
0.710	0.656 9150	7919	37 38 18.45	163.34	0.760	0.695 9007	7675	39 52 19.82	158.30
.711	.657 7067	7914	37 41 01.74	163.24	.761	.696 6679	7670	39 54 58.07	158.20
.712	.658 4978	7909	37 43 44.92	163.14	.762	.697 4347	7665	39 57 36.23	158.10
.713	.659 2885	7904	37 46 28.01	163.04	.763	.698 2009	7660	40 00 14.28	158.00
.714	.660 0787	7899	37 49 11.00	162.94	.764	.698 9667	7655	40 02 52.22	157.90
0.715	0.660 8684	7895	37 51 53.89	162.84	0.765	0.699 7319	7650	40 05 30.07	157.80
.716	.661 6576	7890	37 54 36.68	162.74	.766	.700 4967	7645	40 08 07.81	157.69
.717	.662 4463	7885	37 57 19.36	162.64	.767	.701 2610	7640	40 10 45.46	157.59
.718	.663 2346	7880	38 00 01.95	162.54	.768	.702 0248	7635	40 13 23.00	157.49
.719	.664 0223	7875	38 02 44.44	162.44	.769	.702 7880	7630	40 16 00.44	157.39
0.720	0.664 8096	7870	38 05 26.83	162.34	0.770	0.703 5508	7625	40 18 37.78	157.29
.721	.665 5964	7865	38 08 09.11	162.24	.771	.704 3131	7620	40 21 15.01	157.19
.722	.666 3827	7861	38 10 51.30	162.14	.772	.705 0750	7616	40 23 52.15	157.08
.723	.667 1685	7856	38 13 33.39	162.04	.773	.705 8363	7611	40 26 29.18	156.98
.724	.667 9539	7851	38 16 15.37	161.94	.774	.706 5971	7606	40 29 06.11	156.88
0.725	0.668 7387	7846	38 18 57.26	161.84	0.775	0.707 3574	7601	40 31 42.94	156.78
.726	.669 5231	7841	38 21 39.05	161.74	.776	.708 1173	7596	40 34 19.67	156.68
.727	.670 3069	7836	38 24 20.73	161.64	.777	.708 8766	7591	40 36 56.29	156.57
.728	.671 0903	7831	38 27 02.32	161.54	.778	.709 6354	7586	40 39 32.82	156.47
.729	.671 8732	7827	38 29 43.80	161.43	.779	.710 3938	7581	40 42 09.24	156.37
0.730	0.672 6556	7822	38 32 25.19	161.33	0.780	0.711 1516	7576	40 44 45.56	156.27
.731	.673 4376	7817	38 35 06.47	161.23	.781	.711 9090	7571	40 47 21.77	156.17
.732	.674 2190	7812	38 37 47.65	161.13	.782	.712 6659	7566	40 49 57.89	156.06
.733	.675 0000	7807	38 40 28.74	161.03	.783	.713 4223	7561	40 52 33.90	155.96
.734	.675 7804	7802	38 43 09.72	160.93	.784	.714 1781	7556	40 55 09.81	155.86
0.735	0.676 5604	7797	38 45 50.60	160.83	0.785	0.714 9335	7551	40 57 45.62	155.76
.736	.677 3399	7792	38 48 31.38	160.73	.786	.715 6884	7546	41 00 21.33	155.66
.737	.678 1189	7788	38 51 12.06	160.63	.787	.716 4428	7541	41 02 56.94	155.55
.738	.678 8974	7783	38 53 52.64	160.53	.788	.717 1967	7537	41 05 32.44	155.45
.739	.679 6754	7778	38 56 33.12	160.43	.789	.717 9501	7532	41 08 07.84	155.35
0.740	0.680 4530	7773	38 59 13.50	160.33	0.790	0.718 7030	7527	41 10 43.14	155.25
.741	.681 2300	7768	39 01 53.77	160.23	.791	.719 4554	7522	41 13 18.33	155.15
.742	.682 0065	7763	39 04 33.95	160.13	.792	.720 2073	7517	41 15 53.43	155.04
.743	.682 7826	7758	39 07 14.02	160.02	.793	.720 9588	7512	41 18 28.42	154.94
.744	.683 5582	7753	39 09 54.00	159.92	.794	.721 7097	7507	41 21 03.31	154.84
0.745	0.684 3333	7748	39 12 33.87	159.82	0.795	0.722 4601	7502	41 23 38.10	154.74
.746	.685 1079	7744	39 15 13.64	159.72	.796	.723 2101	7497	41 26 12.78	154.63
.747	.685 8820	7739	39 17 53.31	159.62	.797	.723 9595	7492	41 28 47.36	154.53
.748	.686 6556	7734	39 20 32.88	159.52	.798	.724 7084	7487	41 31 21.84	154.43
.749	.687 4287	7729	39 23 12.35	159.42	.799	.725 4569	7482	41 33 56.22	154.33
0.750	0.688 2014	7724	39 25 51.72	159.32	0.800	0.726 2048	7477	41 36 30.50	154.22
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
0.800	0.726 2048	7477	41 36 30.50	154.22	0.850	0.762 9677	7228	43 42 53.38	149.09
.801	.726 9523	7472	41 39 04.67	154.12	.851	.763 6902	7223	43 45 22.41	148.98
.802	.727 6992	7467	41 41 38.74	154.02	.852	.764 4122	7218	43 47 51.34	148.88
.803	.728 4457	7462	41 44 12.71	153.92	.853	.765 1338	7213	43 50 20.17	148.78
.804	.729 1916	7457	41 46 46.57	153.81	.854	.765 8548	7208	43 52 48.89	148.67
0.805	0.729 9371	7452	41 49 20.34	153.71	0.855	0.766 5754	7203	43 55 17.52	148.57
.806	.730 6821	7447	41 51 54.00	153.61	.856	.767 2954	7198	43 57 46.04	148.47
.807	.731 4266	7442	41 54 27.56	153.51	.857	.768 0149	7193	44 00 14.45	148.36
.808	.732 1705	7437	41 57 01.01	153.40	.858	.768 7340	7188	44 02 42.76	148.26
.809	.732 9140	7432	41 59 34.36	153.30	.859	.769 4525	7183	44 05 10.97	148.16
0.810	0.733 6570	7427	42 02 07.62	153.20	0.860	0.770 1706	7178	44 07 39.08	148.06
.811	.734 3995	7422	42 04 40.76	153.10	.861	.770 8881	7173	44 10 07.08	147.95
.812	.735 1414	7417	42 07 13.81	152.99	.862	.771 6051	7168	44 12 34.98	147.85
.813	.735 8829	7412	42 09 46.75	152.89	.863	.772 3217	7163	44 15 02.78	147.75
.814	.736 6239	7407	42 12 19.59	152.79	.864	.773 0377	7158	44 17 30.48	147.64
0.815	0.737 3644	7402	42 14 52.33	152.69	0.865	0.773 7533	7153	44 19 58.07	147.54
.816	.738 1044	7397	42 17 24.96	152.58	.866	.774 4683	7148	44 22 25.56	147.44
.817	.738 8439	7392	42 19 57.50	152.48	.867	.775 1829	7143	44 24 52.94	147.33
.818	.739 5829	7387	42 22 29.93	152.38	.868	.775 8969	7138	44 27 20.22	147.23
.819	.740 3214	7383	42 25 02.25	152.28	.869	.776 6104	7133	44 29 47.40	147.13
0.820	0.741 0594	7378	42 27 34.48	152.17	0.870	0.777 3235	7128	44 32 14.48	147.02
.821	.741 7969	7373	42 30 06.60	152.07	.871	.778 0360	7123	44 34 41.45	146.92
.822	.742 5339	7368	42 32 38.62	151.97	.872	.778 7481	7118	44 37 08.32	146.82
.823	.743 2704	7363	42 35 10.53	151.86	.873	.779 4596	7113	44 39 35.09	146.71
.824	.744 0064	7358	42 37 42.34	151.76	.874	.780 1707	7108	44 42 01.75	146.61
0.825	0.744 7420	7353	42 40 14.05	151.66	0.875	0.780 8812	7103	44 44 28.31	146.51
.826	.745 4770	7348	42 42 45.66	151.56	.876	.781 5912	7098	44 46 54.77	146.41
.827	.746 2115	7343	42 45 17.17	151.45	.877	.782 3008	7093	44 49 21.12	146.30
.828	.746 9455	7338	42 47 48.57	151.35	.878	.783 0098	7088	44 51 47.37	146.20
.829	.747 6790	7333	42 50 19.87	151.25	.879	.783 7184	7083	44 54 13.52	146.10
0.830	0.748 4120	7328	42 52 51.06	151.14	0.880	0.784 4264	7078	44 56 39.56	145.99
.831	.749 1446	7323	42 55 22.16	151.04	.881	.785 1340	7073	44 59 05.50	145.89
.832	.749 8766	7318	42 57 53.15	150.94	.882	.785 8410	7068	45 01 31.34	145.79
.833	.750 6081	7313	43 00 24.04	150.84	.883	.786 5476	7063	45 03 57.08	145.68
.834	.751 3391	7308	43 02 54.82	150.73	.884	.787 2536	7058	45 06 22.71	145.58
0.835	0.752 0697	7303	43 05 25.50	150.63	0.885	0.787 9591	7053	45 08 48.24	145.48
.836	.752 7997	7298	43 07 56.08	150.53	.886	.788 6642	7048	45 11 13.66	145.37
.837	.753 5292	7293	43 10 26.56	150.42	.887	.789 3687	7043	45 13 38.99	145.27
.838	.754 2582	7288	43 12 56.93	150.32	.888	.790 0728	7038	45 16 04.21	145.17
.839	.754 9868	7283	43 15 27.20	150.22	.889	.790 7763	7033	45 18 29.32	145.06
0.840	0.755 7148	7278	43 17 57.37	150.12	0.890	0.791 4794	7028	45 20 54.34	144.96
.841	.756 4423	7273	43 20 27.43	150.01	.891	.792 1819	7023	45 23 19.25	144.86
.842	.757 1694	7268	43 22 57.39	149.91	.892	.792 8839	7018	45 25 44.05	144.76
.843	.757 8959	7263	43 25 27.25	149.81	.893	.793 5855	7013	45 28 08.76	144.65
.844	.758 6219	7258	43 27 57.01	149.70	.894	.794 2865	7008	45 30 33.36	144.55
0.845	0.759 3475	7253	43 30 26.66	149.60	0.895	0.794 9871	7003	45 32 57.85	144.45
.846	.760 0725	7248	43 32 56.21	149.50	.896	.795 6871	6998	45 35 22.25	144.34
.847	.760 7970	7243	43 35 25.65	149.39	.897	.796 3867	6993	45 37 46.54	144.24
.848	.761 5211	7238	43 37 55.00	149.29	.898	.797 0857	6988	45 40 10.73	144.14
.849	.762 2446	7233	43 40 24.24	149.19	.899	.797 7843	6983	45 42 34.81	144.03
0.850	0.762 9677	7228	43 42 53.38	149.09	0.900	0.798 4823	6978	45 44 58.80	143.93
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
0.900	0.798 4823	6978	45 44 58.80	143.93	0.950	0.832 7479	6728	47 42 46.58	138.78
.901	.799 1798	6973	45 47 22.67	143.83	.951	.833 4205	6723	47 45 05.31	138.68
.902	.799 8769	6968	45 49 46.45	143.72	.952	.834 0926	6719	47 47 23.94	138.58
.903	.800 5734	6963	45 52 10.12	143.62	.953	.834 7642	6714	47 49 42.47	138.48
.904	.801 2695	6958	45 54 33.69	143.52	.954	.835 4353	6709	47 52 00.89	138.37
0.905	0.801 9650	6953	45 56 57.16	143.42	0.955	0.836 1059	6704	47 54 19.22	138.27
.906	.802 6601	6948	45 59 20.52	143.31	.956	.836 7760	6699	47 56 37.44	138.17
.907	.803 3546	6943	46 01 43.78	143.21	.957	.837 4456	6694	47 58 55.55	138.07
.908	.804 0487	6938	46 04 06.94	143.11	.958	.838 1147	6689	48 01 13.57	137.96
.909	.804 7422	6933	46 06 30.00	143.00	.959	.838 7833	6684	48 03 31.48	137.86
0.910	0.805 4353	6928	46 08 52.95	142.90	0.960	0.839 4514	6679	48 05 49.29	137.76
.911	.806 1278	6923	46 11 15.79	142.80	.961	.840 1191	6674	48 08 07.00	137.66
.912	.806 8198	6918	46 13 38.54	142.69	.962	.840 7862	6669	48 10 24.60	137.55
.913	.807 5114	6913	46 16 01.18	142.59	.963	.841 4528	6664	48 12 42.10	137.45
.914	.808 2024	6908	46 18 23.72	142.49	.964	.842 1190	6659	48 14 59.50	137.35
0.915	0.808 8930	6903	46 20 46.16	142.38	0.965	0.842 7846	6654	48 17 16.80	137.25
.916	.809 5830	6898	46 23 08.49	142.28	.966	.843 4497	6649	48 19 33.99	137.14
.917	.810 2726	6893	46 25 30.72	142.18	.967	.844 1144	6644	48 21 51.09	137.04
.918	.810 9616	6888	46 27 52.85	142.08	.968	.844 7785	6639	48 24 08.08	136.94
.919	.811 6502	6883	46 30 14.87	141.97	.969	.845 4422	6634	48 26 24.96	136.84
0.920	0.812 3383	6878	46 32 36.79	141.87	0.970	0.846 1053	6629	48 28 41.75	136.73
.921	.813 0258	6873	46 34 58.61	141.77	.971	.846 7680	6624	48 30 58.43	136.63
.922	.813 7129	6868	46 37 20.33	141.66	.972	.847 4301	6619	48 33 15.01	136.53
.923	.814 3994	6863	46 39 41.94	141.56	.973	.848 0918	6614	48 35 31.49	136.43
.924	.815 0855	6858	46 42 03.45	141.46	.974	.848 7530	6609	48 37 47.87	136.32
0.925	0.815 7710	6853	46 44 24.85	141.35	0.975	0.849 4136	6604	48 40 04.14	136.22
.926	.816 4561	6848	46 46 46.16	141.25	.976	.850 0738	6599	48 42 20.31	136.12
.927	.817 1406	6843	46 49 07.36	141.15	.977	.850 7335	6594	48 44 36.38	136.02
.928	.817 8247	6838	46 51 28.45	141.05	.978	.851 3927	6589	48 46 52.34	135.92
.929	.818 5083	6833	46 53 49.45	140.94	.979	.852 0514	6584	48 49 08.21	135.81
0.930	0.819 1913	6828	46 56 10.34	140.84	0.980	0.852 7096	6579	48 51 23.97	135.71
.931	.819 8739	6823	46 58 31.13	140.74	.981	.853 3673	6574	48 53 39.63	135.61
.932	.820 5560	6818	47 00 51.81	140.63	.982	.854 0245	6570	48 55 55.19	135.51
.933	.821 2375	6813	47 03 12.40	140.53	.983	.854 6812	6565	48 58 10.64	135.40
.934	.821 9186	6808	47 05 32.88	140.43	.984	.855 3374	6560	49 00 26.00	135.30
0.935	0.822 5992	6803	47 07 53.25	140.33	0.985	0.855 9931	6555	49 02 41.25	135.20
.936	.823 2792	6798	47 10 13.53	140.22	.986	.856 6483	6550	49 04 56.40	135.10
.937	.823 9588	6793	47 12 33.70	140.12	.987	.857 3030	6545	49 07 11.44	135.00
.938	.824 6379	6788	47 14 53.77	140.02	.988	.857 9573	6540	49 09 26.39	134.89
.939	.825 3164	6783	47 17 13.74	139.91	.989	.858 6110	6535	49 11 41.23	134.79
0.940	0.825 9945	6778	47 19 33.60	139.81	0.990	0.859 2642	6530	49 13 55.97	134.69
.941	.826 6721	6773	47 21 53.36	139.71	.991	.859 9170	6525	49 16 10.61	134.59
.942	.827 3492	6768	47 24 13.02	139.61	.992	.860 5692	6520	49 18 25.15	134.49
.943	.828 0257	6763	47 26 32.57	139.50	.993	.861 2210	6515	49 20 39.58	134.38
.944	.828 7018	6758	47 28 52.02	139.40	.994	.861 8723	6510	49 22 53.92	134.28
0.945	0.829 3774	6753	47 31 11.37	139.30	0.995	0.862 5230	6505	49 25 08.15	134.18
.946	.830 0525	6748	47 33 30.62	139.20	.996	.863 1733	6500	49 27 22.28	135.08
.947	.830 7271	6743	47 35 49.76	139.09	.997	.863 8231	6495	49 29 36.30	133.98
.948	.831 4012	6738	47 38 08.80	138.99	.998	.864 4724	6490	49 31 50.23	133.87
.949	.832 0748	6733	47 40 27.74	138.89	.999	.865 1112	6485	49 34 04.05	133.77
0.950	0.832 7479	6728	47 42 46.58	138.78	1.000	0.865 7695	6481	49 36 17.77	133.67
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
1.000	0.865 7695	6481	49 36 17.77	133.67	1.050	0.897 5576	6235	51 25 34.55	128.61
.001	.866 4173	6476	49 38 31.39	133.57	.051	.898 1809	6230	51 27 43.11	128.51
.002	.867 0646	6471	49 40 44.91	133.47	.052	.898 8037	6225	51 29 51.57	128.41
.003	.867 7114	6466	49 42 58.33	133.37	.053	.899 4260	6221	51 31 59.92	128.31
.004	.868 3578	6461	49 45 11.64	133.26	.054	.900 0478	6216	51 34 08.18	128.21
1.005	0.869 0036	6456	49 47 24.86	133.16	1.055	0.900 6691	6211	51 36 16.34	128.11
.006	.879 6489	6451	49 49 37.97	133.06	.056	.901 2900	6206	51 38 24.40	128.01
.007	.870 2938	6446	49 51 50.98	132.96	.057	.901 9103	6201	51 40 32.36	127.91
.008	.870 9381	6441	49 54 03.89	132.86	.058	.802 5302	6196	51 42 40.21	127.81
.009	.871 5820	6436	49 56 16.69	132.76	.059	.903 1496	6191	51 44 47.97	127.71
1.010	0.872 2254	6431	49 58 29.40	132.65	1.060	0.903 7685	6187	51 46 55.63	127.61
.011	.872 8682	6426	50 00 42.00	132.55	.061	.904 3869	6182	51 49 03.18	127.51
.012	.873 5106	6421	50 02 54.50	132.45	.062	.905 0048	6177	51 51 10.64	127.41
.013	.874 1525	6416	50 05 06.90	132.35	.063	.905 6222	6172	51 53 18.00	127.31
.014	.874 7939	6412	50 07 19.20	132.25	.064	.906 2392	6167	51 55 25.25	127.21
1.015	0.875 4348	6407	50 09 31.40	132.15	1.065	0.906 8557	6162	51 57 32.41	127.11
.016	.876 0752	6402	50 11 43.49	132.04	.066	.907 4716	6157	51 59 39.46	127.01
.017	.876 7152	6397	50 13 55.49	131.94	.067	.908 0871	6153	52 01 46.42	126.91
.018	.877 3546	6392	50 16 07.38	131.84	.068	.908 7022	6148	52 03 53.27	126.81
.019	.877 9936	6387	50 18 19.17	131.74	.069	.909 3167	6143	52 06 00.03	126.71
1.020	0.878 6320	6382	50 20 30.86	131.64	1.070	0.909 9307	6138	52 08 06.68	126.61
.021	.879 2700	6377	50 22 42.45	131.54	.071	.910 5443	6133	52 10 13.24	126.51
.022	.879 9074	6372	50 24 53.94	131.44	.072	.911 1574	6128	52 12 19.70	126.41
.023	.880 5444	6367	50 27 05.32	131.34	.073	.911 7699	6123	52 14 26.05	126.31
.024	.881 1809	6362	50 29 16.61	131.23	.074	.912 3821	6118	52 16 32.31	126.21
1.025	0.881 8169	6357	50 31 27.79	131.13	1.075	0.912 9937	6114	52 18 38.46	126.11
.026	.882 4524	6353	50 33 38.87	131.03	.076	.913 6048	6109	52 20 44.52	126.01
.027	.883 0874	6348	50 35 49.85	130.93	.077	.914 2155	6104	52 22 50.48	125.91
.028	.883 7219	6343	50 38 00.73	130.83	.078	.914 8256	6099	52 24 56.33	125.81
.029	.884 3560	6338	50 40 11.51	130.73	.079	.915 4353	6094	52 27 02.09	125.71
1.030	0.884 9895	6333	50 42 22.19	130.63	1.080	0.916 0445	6090	52 29 07.75	125.61
.031	.885 6226	6328	50 44 32.76	130.53	.081	.916 6532	6085	52 31 13.30	125.51
.032	.886 2551	6323	50 46 43.24	130.42	.082	.917 2615	6080	52 33 18.76	125.41
.033	.886 8872	6318	50 48 53.61	130.32	.083	.917 8692	6075	52 35 24.12	125.31
.034	.887 5188	6313	50 51 03.89	130.22	.084	.918 4765	6070	52 37 29.38	125.21
1.035	0.888 1499	6308	50 53 14.06	130.12	1.085	0.919 0833	6065	52 39 34.54	125.11
.036	.888 7805	6304	50 55 24.13	130.02	.086	.919 6896	6061	52 41 39.60	125.01
.037	.889 4106	6299	50 57 34.10	129.92	.087	.920 2954	6056	52 43 44.56	124.91
.038	.890 0402	6294	50 59 43.97	129.82	.088	.920 9008	6051	52 45 49.42	124.81
.039	.890 6693	6289	51 01 53.74	129.72	.089	.921 5056	6046	52 47 54.18	124.71
1.040	0.891 2980	6284	51 04 03.41	129.62	1.090	0.922 1100	6041	52 49 58.85	124.61
.041	.891 9262	6279	51 06 12.98	129.52	.091	.922 7139	6037	52 52 03.41	124.51
.042	.892 5538	6274	51 08 22.44	129.42	.092	.923 3173	6032	52 54 07.87	124.41
.043	.893 1810	6269	51 10 31.81	129.32	.093	.923 9203	6027	52 56 12.24	124.32
.044	.893 8077	6264	51 12 41.07	129.21	.094	.924 5227	6022	52 58 16.50	124.22
1.045	0.894 4339	6260	51 14 50.24	129.11	1.095	0.925 1247	6017	53 00 20.67	124.12
.046	.895 0596	6255	51 16 59.30	129.01	.096	.925 7262	6013	53 02 24.74	124.02
.047	.895 6848	6250	51 19 08.26	128.91	.097	.926 3272	6008	53 04 28.70	123.92
.048	.896 3096	6245	51 21 17.12	128.81	.098	.926 9278	6003	53 06 32.57	123.82
.049	.896 9338	6240	51 23 25.88	128.71	.099	.927 5278	5998	53 08 36.34	123.72
1.050	0.897 5576	6235	51 25 34.55	128.61	1.100	0.928 1274	5993	53 10 40.01	123.62
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
1.100	0.928 1274	5993	53 10 40.01	123.62	1.150	0.957 4980	5756	54 51 38.15	118.72
.101	.928 7265	5989	53 12 43.59	123.52	.151	.958 0734	5751	54 53 36.82	118.62
.102	.929 3251	5984	53 14 47.06	123.42	.152	.958 6482	5746	54 55 35.39	118.53
.103	.929 9232	5979	53 16 50.43	123.32	.153	.559 2226	5742	54 57 33.87	118.43
.104	.930 5209	5974	53 18 53.71	123.23	.154	.959 7965	5737	54 59 32.25	118.33
1.105	0.931 1181	5969	53 20 56.89	123.13	1.155	0.960 3700	5732	55 01 30.53	118.23
.106	.931 7148	5965	53 22 59.96	123.03	.156	.960 9430	5727	55 03 28.72	118.14
.107	.932 3110	5960	53 25 02.94	122.93	.157	.961 5155	5723	55 05 26.81	118.04
.108	.932 9067	5955	53 27 05.82	122.83	.158	.962 0875	5718	55 07 24.80	117.94
.109	.933 5020	5950	53 29 08.60	122.73	.159	.962 6591	5713	55 09 22.69	117.85
1.110	0.934 0968	5945	53 31 11.29	122.63	1.160	0.963 2302	5709	55 11 20.49	117.75
.111	.934 6911	5941	53 33 13.87	122.54	.161	.963 8008	5704	55 13 18.19	117.65
.112	.935 2849	5936	53 35 16.36	122.44	.162	.964 3710	5699	55 15 15.80	117.56
.113	.935 8782	5931	53 37 18.75	122.34	.163	.964 9407	5695	55 17 13.31	117.46
.114	.936 4711	5926	53 39 21.03	122.24	.164	.965 5099	5690	55 19 10.72	117.36
1.115	0.937 0635	5922	53 41 23.22	122.14	1.165	0.966 0787	5685	55 21 08.04	117.27
.116	.937 6554	5917	53 43 25.32	122.04	.166	.966 6470	5681	55 23 05.26	117.17
.117	.938 2469	5912	53 45 27.31	122.94	.167	.967 2148	5676	55 25 02.38	117.07
.118	.938 8378	5907	53 47 29.21	121.85	.168	.967 7822	5671	55 26 59.41	116.98
.119	.939 4283	5902	53 49 31.00	121.75	.169	.968 3491	5667	55 28 56.34	116.88
1.120	0.940 0183	5898	53 51 32.70	121.65	1.170	0.968 9155	5662	55 30 53.17	116.79
.121	.940 6079	5893	53 53 34.30	121.55	.171	.969 4815	5657	55 32 49.91	116.69
.122	.941 1969	5888	53 55 35.80	121.45	.172	.970 0470	5653	55 34 46.55	116.59
.123	.941 7855	5883	53 57 37.21	121.35	.173	.970 6120	5648	55 36 43.10	116.50
.124	.942 3736	5879	53 59 38.51	121.26	.174	.971 1766	5643	55 38 39.54	116.40
1.125	0.942 9613	5874	54 01 39.72	121.16	1.175	0.971 7407	5639	55 40 35.90	116.31
.126	.943 5484	5869	54 03 40.83	121.06	.176	.972 3043	5634	55 42 32.16	116.21
.127	.944 1351	5864	54 05 41.84	120.96	.177	.972 8675	5629	55 44 28.32	116.11
.128	.944 7213	5860	54 07 42.76	120.86	.178	.973 4301	5625	55 46 24.38	116.02
.129	.945 3070	5855	54 09 43.57	120.77	.179	.973 9924	5620	55 48 20.35	115.92
1.130	0.945 8923	5850	54 11 44.29	120.67	1.180	0.974 5542	5615	55 50 16.22	115.83
.131	.946 4771	5845	54 13 44.91	120.57	.181	.975 1155	5611	55 52 12.00	115.73
.132	.947 0614	5841	54 15 45.43	120.47	.182	.975 6763	5606	55 54 07.68	115.63
.133	.947 6452	5836	54 17 45.86	120.38	.183	.976 2367	5601	55 56 03.27	115.54
.134	.948 2286	5831	54 19 46.18	120.28	.184	.976 7966	5597	55 57 58.76	115.44
1.135	0.948 8115	5826	54 21 46.41	120.18	1.185	0.977 3560	5592	55 59 54.15	115.35
.136	.949 3939	5822	54 23 46.54	120.08	.186	.977 9150	5588	56 01 49.45	115.25
.137	.949 9758	5817	54 25 46.58	119.98	.187	.978 4735	5583	56 03 44.66	115.16
.138	.950 5573	5812	54 27 46.51	119.89	.188	.979 0316	5578	56 05 39.76	115.06
.139	.951 1383	5807	54 29 46.35	119.79	.189	.979 5892	5574	56 07 34.78	114.96
1.140	0.951 7188	5803	54 31 46.09	119.69	1.190	0.980 1463	5569	56 09 29.69	114.87
.141	.952 2988	5798	54 33 45.74	119.59	.191	.980 7030	5564	56 11 24.51	114.77
.142	.952 8784	5793	54 35 45.28	119.50	.192	.981 2592	5560	56 13 19.24	114.68
.143	.953 4575	5789	54 37 44.73	119.40	.193	.981 8149	5555	56 15 13.87	114.58
.144	.954 0361	5784	54 39 44.08	119.30	.194	.982 3702	5551	56 17 08.41	114.49
1.145	0.954 6143	5779	54 41 43.34	119.21	1.195	0.982 9251	5546	56 19 02.85	114.39
.146	.955 1920	5775	54 43 42.49	119.11	.196	.983 4794	5541	56 20 57.19	114.30
.147	.955 7692	5770	54 45 41.55	119.01	.197	.984 0333	5537	56 22 51.44	114.20
.148	.956 3460	5765	54 47 40.51	118.91	.198	.984 5868	5532	56 24 45.60	114.11
.149	.956 9222	5760	54 49 39.38	118.82	.199	.985 1397	5527	56 26 39.66	114.01
1.150	0.957 4980	5756	54 51 38.15	118.72	1.200	0.985 6922	5523	56 28 33.62	113.92
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
1.200	0.985 6922	5523	56 28 33.62	113.92	1.250	1.012 7356	5295	58 01 31.72	109.23
.201	.986 2443	5518	56 30 27.49	113.82	.251	.013 2649	5291	58 03 20.89	109.13
.202	.986 7959	5514	56 32 21.26	113.73	.252	.013 7938	5286	58 05 09.98	109.04
.203	.987 3470	5509	56 34 14.94	113.63	.253	.014 3222	5282	58 06 58.98	108.95
.204	.987 8977	5504	56 36 08.53	113.54	.254	.014 8502	5277	58 08 47.88	108.86
1.205	0.988 4479	5500	56 38 02.02	113.44	1.255	1.015 3777	5273	58 10 36.69	108.76
.206	.988 9977	5495	56 39 55.42	113.35	.256	.015 9048	5269	58 12 25.40	108.67
.207	.989 5470	5491	56 41 48.72	113.25	.257	.016 4314	5264	58 14 14.03	108.58
.208	.990 0958	5486	56 43 41.92	113.16	.258	.016 9576	5260	58 16 02.56	108.49
.209	.990 6442	5482	56 45 35.03	113.06	.259	.017 4833	5255	58 17 51.00	108.39
1.210	0.991 1921	5477	56 47 28.05	112.97	1.260	1.018 0086	5251	58 19 39.35	108.30
.211	.991 7396	5472	56 49 20.97	112.88	.261	.018 5335	5246	58 21 27.61	108.21
.212	.992 2866	5468	56 51 13.80	112.78	.262	.019 0578	5242	58 23 15.77	108.12
.213	.992 8331	5463	56 53 06.54	112.69	.263	.019 5818	5237	58 25 03.84	108.03
.214	.993 3792	5459	56 54 59.17	112.59	.264	.020 1053	5233	58 26 51.82	107.93
1.215	0.993 9249	5454	56 56 51.72	112.50	1.265	1.020 6283	5228	58 28 39.71	107.84
.216	.994 4700	5449	56 58 44.17	112.40	.266	.021 1510	5224	58 30 27.50	107.75
.217	.995 0148	5445	57 00 36.53	112.31	.267	.021 6731	5219	58 32 15.21	107.66
.218	.995 5590	5440	57 02 28.79	112.22	.268	.022 1948	5215	58 34 02.82	107.57
.219	.996 1028	5436	57 04 20.96	112.12	.269	.022 7161	5210	58 35 50.34	107.47
1.220	0.996 6462	5431	57 06 13.03	112.03	1.270	1.023 2369	5206	58 37 37.77	107.38
.221	.997 1891	5427	57 08 05.01	111.93	.271	.023 7573	5202	58 39 25.10	107.29
.222	.997 7315	5422	57 09 56.90	111.84	.272	.024 2772	5197	58 41 12.35	107.20
.223	.998 2735	5418	57 11 48.69	111.74	.273	.024 7967	5193	58 42 59.50	107.11
.224	.998 8150	5413	57 13 40.39	111.65	.274	.025 3158	5188	58 44 46.56	107.02
1.225	0.999 3561	5408	57 15 31.99	111.56	1.275	1.025 8344	5184	58 46 33.53	106.92
.226	.999 8967	5404	57 17 23.50	111.46	.276	.026 3526	5179	58 48 20.41	106.83
.227	1.000 4369	5399	57 19 14.92	111.37	.277	.026 8703	5175	58 50 07.20	106.74
.228	.000 9766	5395	57 21 06.24	111.28	.278	.027 3876	5171	58 51 53.90	106.65
.229	.001 5158	5390	57 22 57.47	111.18	.279	.027 9044	5166	58 53 40.50	106.56
1.230	1.002 0546	5386	57 24 48.60	111.09	1.280	1.028 4208	5162	58 55 27.02	106.47
.231	.002 5930	5381	57 26 39.64	110.99	.281	.028 9367	5157	58 57 13.44	106.38
.232	.003 1309	5377	57 28 30.59	110.90	.282	.029 4523	5153	58 58 59.77	106.29
.233	.003 6683	5372	57 30 21.45	110.81	.283	.029 9673	5148	59 00 46.01	106.19
.234	.004 2053	5368	57 32 12.21	110.71	.284	.030 4819	5144	59 02 32.16	106.10
1.235	1.004 7418	5363	57 34 02.88	110.62	1.285	1.030 9961	5140	59 04 18.22	106.01
.236	.005 2779	5359	57 35 53.45	110.53	.286	.031 5099	5135	59 06 04.19	105.92
.237	.005 8135	5354	57 37 43.93	110.43	.287	.032 0232	5131	59 07 50.06	105.83
.238	.006 3487	5349	57 39 34.32	110.34	.288	.032 5360	5126	59 09 35.85	105.74
.239	.006 8834	5345	57 41 24.61	110.25	.289	.033 0485	5122	59 11 21.54	105.65
1.240	1.007 4177	5340	57 43 14.82	110.15	1.290	1.033 5605	5118	59 13 07.15	105.56
.241	.007 9515	5336	57 45 04.92	110.06	.291	.034 0720	5113	59 14 52.66	105.47
.242	.008 4840	5331	57 46 54.94	109.97	.292	.034 5831	5109	59 16 38.08	105.38
.243	.009 0178	5327	57 48 44.86	109.88	.293	.035 0938	5104	59 18 23.41	105.29
.244	.009 5503	5322	57 50 34.69	109.78	.294	.035 6040	5100	59 20 08.66	105.20
1.245	1.010 0823	5318	57 52 24.43	109.69	1.295	1.036 1138	5096	59 21 53.81	105.11
.246	.010 6139	5313	57 54 14.07	109.60	.296	.036 6231	5091	59 23 38.87	105.02
.247	.011 1450	5309	57 56 03.62	109.50	.297	.037 1320	5087	59 25 23.84	104.93
.248	.011 6756	5304	57 57 53.08	109.41	.298	.037 6405	5083	59 27 08.72	104.83
.249	.012 2058	5300	57 59 42.44	109.32	.299	.038 1485	5078	59 28 53.51	104.74
1.250	1.012 7356	5295	58 01 31.72	109.23	1.300	1.038 6561	5074	59 30 38.21	104.65
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
1.300	1.038 6561	5074	59 30 38.21	104.65	1.350	1.063 4837	4858	60 55 59.27	100.21
.301	.039 1633	5069	59 32 22.82	104.56	.351	.063 9694	4854	60 57 39.43	100.12
.302	.039 6700	5065	59 34 07.34	104.47	.352	.064 4546	4850	60 59 19.51	100.03
.303	.040 1763	5061	59 35 51.77	104.38	.353	.064 9393	4846	61 00 59.50	99.95
.304	.040 6822	5056	59 37 36.10	104.29	.354	.065 4237	4841	61 02 39.41	99.86
1.305	1.041 1876	5052	59 39 20.35	104.20	1.355	1.065 9076	4837	61 04 19.22	99.77
.306	.041 6926	5048	59 41 04.51	104.11	.356	.066 3911	4833	61 05 58.95	99.69
.307	.042 1971	5043	59 42 48.58	104.02	.357	.066 8742	4829	61 07 38.59	99.60
.308	.042 7012	5039	59 44 32.56	103.93	.358	.067 3568	4824	61 09 18.15	99.51
.309	.043 2049	5035	59 46 16.45	103.84	.359	.067 8390	4820	61 10 57.61	99.42
1.310	1.043 7081	5030	59 48 00.25	103.76	1.360	1.068 3209	4816	61 12 36.99	99.34
.311	.044 2109	5026	59 49 43.96	103.67	.361	.068 8022	4812	61 14 16.29	99.25
.312	.044 7133	5021	59 51 27.58	103.58	.362	.069 2832	4808	61 15 55.49	99.16
.313	.045 2152	5017	59 53 11.11	103.49	.363	.069 7637	4803	61 17 34.61	99.08
.314	.045 7167	5013	59 54 54.55	103.40	.364	.070 2439	4799	61 19 13.64	98.99
1.315	1.046 2178	5008	59 56 37.91	103.31	1.365	1.070 7236	4795	61 20 52.59	98.90
.316	.046 7184	5004	59 58 21.17	103.22	.366	.071 2028	4791	61 22 31.45	98.82
.317	.047 2186	5000	60 00 04.34	103.13	.367	.071 6817	4786	61 24 10.22	98.73
.318	.047 7184	4995	60 01 47.43	103.04	.368	.072 1601	4782	61 25 48.90	98.64
.319	.048 2177	4991	60 03 30.42	102.95	.369	.072 6382	4778	61 27 27.50	98.56
1.320	1.048 7166	4987	60 05 13.33	102.86	1.370	1.073 1158	4774	61 29 06.01	98.47
.321	.049 2151	4983	60 06 56.14	102.77	.371	.073 5929	4770	61 30 44.44	98.38
.322	.049 7131	4978	60 08 38.87	102.68	.372	.074 0697	4766	61 32 22.78	98.30
.323	.050 2107	4974	60 10 21.51	102.59	.373	.074 5460	4761	61 34 01.03	98.21
.324	.050 7079	4970	60 12 04.06	102.50	.374	.075 0220	4757	61 35 39.20	98.12
1.325	1.051 2046	4965	60 13 46.52	102.42	1.375	1.075 4975	4753	61 37 17.28	98.04
.326	.051 7009	4961	60 15 28.89	102.33	.376	.075 9725	4749	61 38 55.27	97.95
.327	.052 1968	4957	60 17 11.17	102.24	.377	.076 4472	4745	61 40 33.18	97.86
.328	.052 6923	4952	60 18 53.37	102.15	.378	.076 9215	4740	61 42 11.00	97.78
.329	.053 1873	4948	60 20 35.47	102.06	.379	.077 3953	4736	61 43 48.73	97.69
1.330	1.053 6819	4944	60 22 17.49	101.97	1.380	1.077 8687	4732	61 45 26.38	97.61
.331	.054 1760	4939	60 23 59.41	101.88	.381	.078 3417	4728	61 47 03.94	97.52
.332	.054 6698	4935	60 25 41.25	101.79	.382	.078 8143	4724	61 48 41.42	97.43
.333	.055 1631	4931	60 27 23.00	101.71	.383	.079 2865	4720	61 50 18.81	97.35
.334	.055 6559	4927	60 29 04.67	101.62	.384	.079 7582	4715	61 51 56.12	97.26
1.335	1.056 1484	4922	60 30 46.24	101.53	1.385	1.080 2295	4711	61 53 33.34	97.18
.336	.056 6404	4918	60 32 27.72	101.44	.386	.080 7005	4707	61 55 10.47	97.09
.337	.057 1320	4914	60 34 09.12	101.35	.387	.081 1710	4703	61 56 47.52	97.01
.338	.057 6231	4909	60 35 50.43	101.26	.388	.081 6411	4699	61 58 24.48	96.92
.339	.058 1139	4905	60 37 31.65	101.18	.389	.082 1107	4695	62 00 01.36	96.83
1.340	1.058 6042	4901	60 39 12.78	101.09	1.390	1.082 5800	4691	62 01 38.15	96.75
.341	.059 0940	4897	60 40 53.83	101.00	.391	.083 0488	4686	62 03 14.86	96.66
.342	.059 5835	4892	60 42 34.78	100.91	.392	.083 5173	4682	62 04 51.48	96.58
.343	.060 0725	4888	60 44 15.65	100.82	.393	.083 9853	4678	62 06 28.01	96.49
.344	.060 5611	4884	60 45 56.43	100.74	.394	.084 4529	4674	62 08 04.46	96.41
1.345	1.061 0493	4880	60 47 37.12	100.65	1.395	1.084 9201	4670	62 09 40.83	96.32
.346	.061 5370	4875	60 49 17.73	100.56	.396	.085 3868	4666	62 11 17.11	96.24
.347	.062 0243	4871	60 50 58.24	100.47	.397	.085 8532	4662	62 12 53.30	96.15
.348	.062 5112	4867	60 52 38.67	100.38	.398	.086 3192	4657	62 14 29.41	96.07
.349	.062 9977	4863	60 54 19.01	100.30	.399	.086 7847	4653	62 16 05.44	95.98
1.350	1.063 4837	4858	60 55 59.27	100.21	1.400	1.087 2498	4649	62 17 41.37	95.90
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
1.400	1.087 2498	4649	62 17 41.37	95.90	1.450	1.109 9869	4447	63 35 51.24	91.72
.401	.087 7145	4645	62 19 17.23	95.81	.451	.110 4314	4443	63 37 22.92	91.64
.402	.088 1788	4641	62 20 53.00	95.73	.452	.110 8755	4439	63 38 54.52	91.56
.403	.088 6427	4637	62 22 28.68	95.64	.453	.111 3192	4435	63 40 26.03	91.47
.404	.089 1062	4633	62 24 04.28	95.56	.454	.111 7624	4431	63 41 57.46	91.39
1.405	1.089 5693	4629	62 25 39.80	95.47	1.455	1.112 2053	4427	63 43 28.82	91.31
.406	.090 0320	4625	62 27 15.23	95.39	.456	.112 6478	4423	63 45 00.08	91.23
.407	.090 4942	4620	62 28 50.58	95.30	.457	.113 0899	4419	63 46 31.27	91.15
.408	.090 9561	4616	62 30 25.84	95.22	.458	.113 5316	4415	63 48 02.38	91.07
.409	.091 4175	4612	62 32 01.02	95.14	.459	.113 9729	4411	63 49 33.40	90.98
1.410	1.091 8785	4608	62 33 36.11	95.05	1.460	1.114 4138	4407	63 51 04.35	90.90
.411	.092 3391	4604	62 35 11.12	94.97	.461	.114 8543	4403	63 52 35.21	90.82
.412	.092 7993	4600	62 36 46.04	94.88	.462	.115 2944	4399	63 54 05.99	90.74
.413	.093 2591	4596	62 38 20.88	94.80	.463	.115 7341	4395	63 55 36.68	90.66
.414	.093 7185	4592	62 39 55.64	94.71	.464	.116 1734	4391	63 57 07.30	90.58
1.415	1.094 1775	4588	62 41 30.31	94.63	1.465	1.116 6124	4387	63 58 37.83	90.49
.416	.094 6361	4584	62 43 04.90	94.55	.466	.117 0509	4383	64 00 08.29	90.41
.417	.095 0942	4580	62 44 39.40	94.46	.467	.117 4890	4379	64 01 38.66	90.33
.418	.095 5520	4576	62 46 13.82	94.38	.468	.117 9268	4375	64 03 08.95	90.25
.419	.096 0094	4571	62 47 48.16	94.29	.469	.118 3641	4372	64 04 39.16	90.17
1.420	1.096 4663	4567	62 49 22.41	94.21	1.470	1.118 8011	4368	64 06 09.29	90.09
.421	.096 9228	4563	62 50 56.58	94.13	.471	.119 2377	4364	64 07 39.34	90.01
.422	.097 3790	4559	62 52 30.66	94.04	.472	.119 6738	4360	64 09 09.31	89.93
.423	.097 8347	4555	62 54 04.66	93.96	.473	.120 1096	4356	64 10 39.19	89.85
.424	.098 2900	4551	62 55 38.58	93.88	.474	.120 5450	4352	64 12 09.00	89.76
1.425	1.098 7449	4547	62 57 12.41	93.79	1.475	1.120 9800	4348	64 13 38.72	89.68
.426	.099 1994	4543	62 58 46.16	93.71	.476	.121 4146	4344	64 15 08.37	89.60
.427	.099 6536	4539	63 00 19.83	93.62	.477	.121 8488	4340	64 16 37.93	89.52
.428	.100 1073	4535	63 01 53.41	93.54	.478	.122 2826	4336	64 18 07.41	89.44
.429	.100 5606	4531	63 03 26.91	93.46	.479	.122 7161	4332	64 19 36.81	89.36
1.430	1.101 0134	4527	63 05 00.33	93.37	1.480	1.123 1491	4328	64 21 06.13	89.28
.431	.101 4659	4523	63 06 33.66	93.29	.481	.123 5818	4325	64 22 35.37	89.20
.432	.101 9180	4519	63 08 06.91	93.21	.482	.124 0140	4321	64 24 04.53	89.12
.433	.102 3697	4515	63 09 40.08	93.13	.483	.124 4459	4317	64 25 33.61	89.04
.434	.102 8210	4511	63 11 13.16	93.04	.484	.124 8774	4313	64 27 02.61	88.96
1.435	1.103 2719	4507	63 12 46.16	92.96	1.485	1.125 3085	4309	64 28 31.53	88.88
.436	.103 7223	4503	63 14 19.08	92.88	.486	.125 7392	4305	64 30 00.37	88.80
.437	.104 1724	4499	63 15 51.91	92.79	.487	.126 1695	4301	64 31 29.13	88.72
.438	.104 6221	4495	63 17 24.66	92.71	.488	.126 5994	4297	64 32 57.81	88.64
.439	.105 0714	4491	63 18 57.33	92.63	.489	.127 0289	4293	64 34 26.41	88.56
1.440	1.105 5202	4487	63 20 29.92	92.54	1.490	1.127 4581	4290	64 35 54.93	88.48
.441	.105 9687	4483	63 22 02.42	92.46	.491	.127 8869	4286	64 37 23.37	88.40
.442	.106 4168	4479	63 23 34.84	92.38	.492	.128 3152	4282	64 38 51.72	88.32
.443	.106 8644	4475	63 25 07.18	92.30	.493	.128 7432	4278	64 40 20.00	88.24
.444	.107 3117	4471	63 26 39.44	92.21	.494	.129 1708	4274	64 41 48.20	88.16
1.445	1.107 7586	4467	63 28 11.61	92.13	1.495	1.129 5980	4270	64 43 16.32	88.08
.446	.108 2050	4463	63 29 43.70	92.05	.496	.130 0249	4266	64 44 44.36	88.00
.447	.108 6511	4459	63 31 15.71	91.97	.497	.130 4513	4263	64 46 12.32	87.92
.448	.109 0968	4455	63 32 47.63	91.88	.498	.130 8774	4259	64 47 40.20	87.84
.449	.109 5421	4451	63 34 19.48	91.80	.499	.131 3031	4255	64 49 08.01	87.76
1.450	1.109 9869	4447	63 35 51.24	91.72	1.500	1.131 7283	4251	64 50 35.73	87.68
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
1.500	1.131 7283	4251	64 50 35.73	87.68	1.550	1.152 5078	4062	66 02 01.81	83.78
.501	.132 1532	4247	64 52 03.37	87.60	.551	.152 9139	4058	66 03 25.55	83.71
.502	.132 5778	4243	64 53 30.93	87.52	.552	.153 3195	4055	66 04 49.22	83.63
.503	.133 0019	4239	64 54 58.42	87.44	.553	.153 7248	4051	66 06 12.81	83.55
.504	.133 4257	4236	64 56 25.82	87.37	.554	.154 1297	4047	66 07 36.33	83.48
1.505	1.133 8490	4232	64 57 53.15	87.29	1.555	1.154 5342	4043	66 08 59.77	83.40
.506	.134 2720	4228	64 59 20.40	87.21	.556	.154 9384	4040	66 10 23.14	83.33
.507	.134 6946	4224	65 00 47.56	87.13	.557	.155 3421	4036	66 11 46.42	83.25
.508	.135 1168	4220	65 02 14.65	87.05	.558	.155 7456	4032	66 13 09.63	83.17
.509	.135 5387	4216	65 03 41.66	86.97	.559	.156 1486	4029	66 14 32.77	83.10
1.510	1.135 9601	4213	65 05 08.59	86.89	1.560	1.156 5513	4025	66 15 55.83	83.02
.511	.136 3812	4209	65 06 35.44	86.81	.561	.156 9536	4021	66 17 18.81	82.95
.512	.136 8019	4205	65 08 02.22	86.73	.562	.157 3556	4018	66 18 41.72	82.87
.513	.137 2222	4201	65 09 28.91	86.66	.563	.157 7571	4014	66 20 04.55	82.79
.514	.137 6421	4197	65 10 55.53	86.58	.564	.158 1583	4010	66 21 27.31	82.72
1.515	1.138 0617	4194	65 12 22.07	86.50	1.565	1.158 5592	4007	66 22 49.99	82.64
.516	.138 4808	4190	65 13 48.52	86.42	.566	.158 9597	4003	66 24 12.59	82.57
.517	.138 8996	4186	65 15 14.91	86.34	.567	.159 3598	3999	66 25 35.12	82.49
.518	.139 3180	4182	65 16 41.21	86.26	.568	.159 7595	3996	66 26 57.57	82.42
.519	.139 7360	4178	65 18 07.43	86.18	.569	.160 1589	3992	66 28 19.95	82.34
1.520	1.140 1537	4175	65 19 33.58	86.11	1.570	1.160 5579	3988	66 29 42.25	82.26
.521	.140 5709	4171	65 20 59.64	86.03	.571	.160 9566	3985	66 31 04.48	82.19
.522	.140 9878	4167	65 22 25.63	85.95	.572	.161 3548	3981	66 32 26.63	82.11
.523	.141 4043	4163	65 23 51.54	85.87	.573	.161 7527	3977	66 33 48.71	82.04
.524	.141 8205	4159	65 25 17.38	85.79	.574	.162 1503	3974	66 35 10.71	81.96
1.525	1.142 2362	4156	65 26 43.13	85.72	1.575	1.162 5475	3970	66 36 32.63	81.89
.526	.142 6516	4152	65 28 08.81	85.64	.576	.162 9443	3966	66 37 54.48	81.81
.527	.143 0666	4148	65 29 34.41	85.56	.577	.163 3408	3963	66 39 16.26	81.74
.528	.143 4812	4144	65 30 59.93	85.48	.578	.163 7369	3959	66 40 37.96	81.66
.529	.143 8954	4141	65 32 25.37	85.40	.579	.164 1326	3955	66 41 59.58	81.59
1.530	1.144 3093	4137	65 33 50.74	85.33	1.580	1.164 5279	3952	66 43 21.13	81.51
.531	.144 7228	4133	65 35 16.02	85.25	.581	.164 9230	3948	66 44 42.61	81.44
.532	.145 1359	4129	65 36 41.23	85.17	.582	.165 3176	3945	66 46 04.01	81.36
.533	.145 5486	4125	65 38 06.37	85.09	.583	.165 7119	3941	66 47 25.33	81.29
.534	.145 9610	4122	65 39 31.42	85.02	.584	.166 1058	3937	66 48 46.58	81.21
1.535	1.146 3730	4118	65 40 56.40	84.94	1.585	1.166 4993	3934	66 50 07.76	81.14
.536	.146 7846	4114	65 42 21.30	84.86	.586	.166 8925	3930	66 51 28.86	81.06
.537	.147 1958	4110	65 43 46.12	84.78	.587	.167 2854	3926	66 52 49.89	80.99
.538	.147 6067	4107	65 45 10.87	84.71	.588	.167 6778	3923	66 54 10.84	80.92
.539	.148 0172	4103	65 46 35.54	84.63	.589	.168 0699	3919	66 55 31.72	80.84
1.540	1.148 4273	4099	65 48 00.13	84.55	1.590	1.168 4617	3916	66 56 52.52	80.77
.541	.148 8370	4095	65 49 24.64	84.48	.591	.168 8531	3912	66 58 13.25	80.69
.542	.149 2464	4092	65 50 49.08	84.40	.592	.169 2441	3908	66 59 33.91	80.62
.543	.149 6554	4088	65 52 13.44	84.32	.593	.169 6348	3905	67 00 54.49	80.54
.544	.150 0640	4084	65 53 37.72	84.25	.594	.170 0251	3901	67 02 15.00	80.47
1.545	1.150 4722	4081	65 55 01.93	84.17	1.595	1.170 4150	3898	67 03 35.43	80.40
.546	.150 8801	4077	65 56 26.06	84.09	.596	.170 8046	3894	67 04 55.79	80.32
.547	.151 2876	4073	65 57 50.11	84.01	.597	.171 1938	3891	67 06 16.07	80.25
.548	.151 6947	4069	65 59 14.08	83.94	.598	.171 5827	3887	67 07 36.28	80.17
.549	.152 1015	4066	66 00 37.98	83.86	.599	.171 9712	3883	67 08 56.42	80.10
1.550	1.152 5078	4062	66 02 01.81	83.78	1.600	1.172 3594	3880	67 10 16.48	80.03
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
1.600	1.172 3594	3880	67 10 16.48	80.03	1.650	1.191 3170	3704	68 15 26.76	76.41
.601	.172 7472	3876	67 11 36.47	79.95	.651	.191 6872	3701	68 16 43.13	76.34
.602	.173 1346	3873	67 12 56.39	79.88	.652	.192 0571	3697	68 17 59.44	76.27
.603	.173 5217	3869	67 14 16.23	79.81	.653	.192 4267	3694	68 19 15.67	76.20
.604	.173 9084	3865	67 15 36.00	79.73	.654	.192 7960	3691	68 20 31.83	76.12
1.605	1.174 2948	3862	67 16 55.69	79.66	1.655	1.193 1648	3687	68 21 47.92	76.05
.606	.174 6808	3858	67 18 15.31	79.58	.656	.193 5334	3684	68 23 03.93	75.98
.607	.175 0665	3855	67 19 34.86	79.51	.657	.193 9016	3680	68 24 19.88	75.91
.608	.175 4518	3851	67 20 54.34	79.44	.658	.194 2695	3677	68 25 35.76	75.84
.609	.175 8367	3848	67 22 13.74	79.36	.659	.194 6370	3674	68 26 51.57	75.77
1.610	1.176 2213	3844	67 23 33.07	79.29	1.660	1.195 0042	3670	68 28 07.30	75.70
.611	.176 6056	3841	67 24 52.32	79.22	.661	.195 3710	3667	68 29 22.97	75.63
.612	.176 9895	3837	67 26 11.50	79.15	.662	.195 7375	3663	68 30 38.56	75.56
.613	.177 3730	3834	67 27 30.61	79.07	.663	.196 1037	3660	68 31 54.09	75.49
.614	.177 7562	3830	67 28 49.65	79.00	.664	.196 4695	3656	68 33 09.54	75.43
1.615	1.178 1390	3826	67 30 08.61	78.93	1.665	1.196 8349	3653	68 34 24.93	75.36
.616	.178 5215	3823	67 31 27.50	78.85	.666	.197 2001	3650	68 35 40.24	75.29
.617	.178 9036	3819	67 32 46.32	78.78	.667	.197 5649	3646	68 36 55.49	75.22
.618	.179 2853	3816	67 34 05.06	78.71	.668	.197 9293	3643	68 38 10.66	75.15
.619	.179 6667	3812	67 35 23.73	78.63	.669	.198 2935	3639	68 39 25.77	75.08
1.620	1.180 0478	3809	67 36 42.33	78.56	1.670	1.198 6572	3636	68 40 40.80	75.01
.621	.180 4285	3805	67 38 00.86	78.49	.671	.199 0207	3633	68 41 55.77	74.94
.622	.180 8089	3802	67 39 19.31	78.42	.672	.199 3838	3629	68 43 10.66	74.87
.623	.181 1889	3798	67 40 37.69	78.34	.673	.199 7465	3626	68 44 25.49	74.80
.624	.181 5685	3795	67 41 56.00	78.27	.674	.200 1090	3623	68 45 40.24	74.72
1.625	1.181 9478	3791	67 43 14.24	78.20	1.675	1.200 4711	3619	68 46 54.93	74.65
.626	.182 3268	3788	67 44 32.40	78.13	.676	.200 8328	3616	68 48 09.55	74.58
.627	.182 7054	3784	67 45 50.49	78.06	.677	.201 1942	3612	68 49 24.09	74.51
.628	.183 0836	3781	67 47 08.51	77.98	.678	.201 5553	3609	68 50 38.57	74.44
.629	.183 4615	3777	67 48 26.46	77.91	.679	.201 9160	3606	68 51 52.98	74.37
1.630	1.183 8390	3774	67 49 44.33	77.84	1.680	1.202 2764	3602	68 53 07.32	74.30
.631	.184 2162	3770	67 51 02.13	77.77	.681	.202 6365	3599	68 54 21.58	74.23
.632	.184 5931	3767	67 52 19.86	77.69	.682	.202 9962	3596	68 55 35.78	74.17
.633	.184 9696	3763	67 53 37.52	77.62	.683	.203 3556	3592	68 56 49.92	74.10
.634	.185 3457	3760	67 54 55.11	77.55	.684	.203 7147	3589	68 58 03.98	74.03
1.635	1.185 7215	3756	67 56 12.62	77.48	1.685	1.204 0734	3586	68 59 17.97	73.96
.636	.186 0970	3753	67 57 30.07	77.41	.686	.204 4318	3582	69 00 31.89	73.89
.637	.186 4721	3749	67 58 47.44	77.34	.687	.204 7899	3579	69 01 45.75	73.82
.638	.186 8469	3746	68 00 04.74	77.26	.688	.205 1476	3576	69 02 59.53	73.75
.639	.187 2213	3742	68 01 21.97	77.19	.689	.205 5050	3572	69 04 13.25	73.68
1.640	1.187 5953	3739	68 02 39.12	77.12	1.690	1.205 8620	3569	69 05 26.90	73.61
.641	.187 9691	3735	68 03 56.21	77.05	.691	.206 2187	3566	69 06 40.48	73.54
.642	.188 3424	3732	68 05 13.22	76.98	.692	.206 5751	3562	69 07 53.99	73.48
.643	.188 7155	3729	68 06 30.16	76.91	.693	.206 9312	3559	69 09 07.43	73.41
.644	.189 0881	3725	68 07 47.03	76.83	.694	.207 2869	3556	69 10 20.80	73.34
1.645	1.189 4605	3722	68 09 03.83	76.76	1.695	1.207 6423	3552	69 11 34.11	73.27
.646	.189 8325	3718	68 10 20.56	76.69	.696	.207 9974	3549	69 12 47.34	73.20
.647	.190 2041	3715	68 11 37.22	76.62	.697	.208 3521	3546	69 14 00.51	73.13
.648	.190 5754	3711	68 12 53.80	76.55	.698	.208 7065	3542	69 15 13.61	73.07
.649	.190 9463	3708	68 14 10.32	76.48	.699	.209 0605	3539	69 16 26.64	73.00
1.650	1.191 3170	3704	68 15 26.76	76.41	1.700	1.209 4143	3536	69 17 39.60	72.93
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
1.700	1.209 4143	3536	69 17 39.60	72.93	1.750	1.226 6847	3374	70 17 01.89	69.59
.701	.209 7677	3532	69 18 52.50	72.86	.751	.227 0219	3370	70 18 11.44	69.52
.702	.210 1208	3529	69 20 05.32	72.79	.752	.227 3588	3367	70 19 20.93	69.45
.703	.210 4735	3526	69 21 18.08	72.72	.753	.227 6954	3364	70 20 30.35	69.39
.704	.210 8259	3522	69 22 30.77	72.66	.754	.228 0316	2361	70 21 39.71	69.32
1.705	1.211 1780	3519	69 23 43.39	72.59	1.755	1.228 3676	3358	70 22 49.00	69.26
.706	.211 5297	3516	69 24 55.95	72.52	.756	.228 7032	3355	70 23 58.23	69.19
.707	.211 8812	3513	69 26 08.43	72.45	.757	.229 0385	3351	70 25 07.39	69.13
.708	.212 2323	3509	69 27 20.85	72.38	.758	.229 3735	3348	70 26 16.48	69.06
.709	.212 5830	3506	69 28 33.20	72.32	.759	.229 7082	3345	70 27 25.51	69.00
1.710	1.212 9335	3503	69 29 45.49	72.25	1.760	1.230 0425	3342	70 28 34.48	68.93
.711	.213 2836	3499	69 30 57.70	72.18	.761	.230 3765	3339	70 29 43.38	68.87
.712	.213 6334	3496	69 32 09.85	72.11	.762	.230 7103	3336	70 30 52.22	68.80
.713	.213 9828	3493	69 33 21.93	72.05	.763	.231 0437	3333	70 32 00.99	68.74
.714	.214 3319	3490	69 34 33.94	71.98	.764	.231 3768	3329	70 33 09.69	68.67
1.715	1.214 6807	3486	69 35 45.89	71.91	1.765	1.231 7096	3326	70 34 18.33	68.61
.716	.215 0292	3483	69 36 57.76	71.84	.766	.232 0420	3323	70 35 26.91	68.54
.717	.215 3774	3480	69 38 09.57	71.78	.767	.232 3742	3320	70 36 35.42	68.48
.718	.215 7252	3477	69 39 21.32	71.71	.768	.232 7060	3317	70 37 43.87	68.42
.719	.216 0727	3473	69 40 32.99	71.64	.769	.233 0376	3314	70 38 52.25	68.35
1.720	1.216 4198	3470	69 41 44.60	71.58	1.770	1.233 3688	3311	70 40 00.57	68.29
.721	.216 7667	3467	69 42 56.14	71.51	.771	.233 6997	3307	70 41 08.83	68.22
.722	.217 1132	3464	69 44 07.62	71.44	.772	.234 0303	3304	70 42 17.02	68.16
.723	.217 4594	3460	69 45 19.02	71.37	.773	.234 3606	3301	70 43 25.14	68.09
.724	.217 8053	3457	69 46 30.37	71.31	.774	.234 6905	3298	70 44 33.20	68.03
1.725	1.218 1508	3454	69 47 41.64	71.23	1.775	1.235 0202	3295	70 45 41.20	67.96
.726	.218 4960	3451	69 48 52.85	71.16	.776	.235 3495	3292	70 46 49.13	67.90
.727	.218 8409	3447	69 50 03.99	71.10	.777	.235 6786	3289	70 47 57.00	67.84
.728	.219 1855	3444	69 51 15.06	71.03	.778	.236 0073	3286	70 49 04.80	67.77
.729	.219 5297	3441	69 52 26.06	70.96	.779	.236 3357	3283	70 50 12.54	67.71
1.730	1.219 8737	3438	69 53 37.90	70.90	1.780	1.236 6638	3279	70 51 20.22	67.64
.731	.220 2173	3434	69 54 47.88	70.83	.781	.236 9916	3276	70 52 27.83	67.58
.732	.220 5605	3431	69 55 58.68	70.76	.782	.237 3191	3273	70 53 35.38	67.52
.733	.220 9035	3428	69 57 09.42	70.70	.783	.237 6463	3270	70 54 42.87	67.45
.734	.221 2461	3425	69 58 20.10	70.63	.784	.237 9731	3267	70 55 50.29	67.39
1.735	1.221 5885	3422	69 59 30.71	70.56	1.785	1.238 2997	3264	70 56 57.65	67.33
.736	.221 9304	3418	70 00 41.25	70.50	.786	.238 6259	3261	70 58 04.94	67.26
.737	.222 2721	3415	70 01 51.72	70.43	.787	.238 9519	3258	70 59 12.17	67.20
.738	.222 6135	3412	70 03 02.13	70.37	.788	.239 2775	3255	71 00 19.34	67.13
.739	.222 9545	3409	70 04 12.47	70.30	.789	.239 6028	3252	71 01 26.44	67.07
1.740	1.223 2952	3405	70 05 22.75	70.23	1.790	1.239 9279	3249	71 02 33.48	67.01
.741	.223 6356	3402	70 06 32.96	70.18	.791	.240 2526	3246	71 03 40.46	66.94
.742	.223 9757	3399	70 07 43.10	70.11	.792	.240 5770	3243	71 04 47.37	66.88
.743	.224 3154	3396	70 08 53.18	70.05	.793	.240 9011	3239	71 05 54.22	66.82
.744	.224 6548	3393	70 10 03.19	69.98	.794	.241 2249	3236	71 07 01.01	66.76
1.745	1.224 9940	3390	70 11 13.14	69.91	1.795	1.241 5483	3233	71 08 07.73	66.69
.746	.225 3328	3386	70 12 23.02	69.85	.796	.241 8715	3230	71 09 14.39	66.63
.747	.225 6712	3383	70 13 32.84	69.78	.797	.242 1944	3227	71 10 20.99	66.57
.748	.226 0094	3380	70 14 42.59	69.72	.798	.242 5170	3224	71 11 27.52	66.50
.749	.226 3472	3377	70 15 52.27	69.65	.799	.242 8392	3221	71 12 33.99	66.44
1.750	1.226 6847	3374	70 17 01.89	69.59	1.800	1.243 1612	3218	71 13 40.40	66.38
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
1.800	1.243 1612	3218	71 13 40.40	66.38	1.850	1.258 8759	3069	72 07 41.78	63.30
.801	.243 4828	3215	71 14 46.75	66.31	.851	.219 1826	3066	72 08 45.05	63.24
.802	.243 8042	3212	71 15 53.03	66.25	.852	.259 4890	3063	72 09 48.26	63.18
.803	.244 1252	3209	71 16 59.25	66.19	.853	.259 7952	3060	72 10 51.41	63.12
.804	.244 4460	3206	71 18 05.41	66.13	.854	.260 1011	3057	72 11 54.50	63.06
1.805	1.244 7664	3203	71 19 11.50	66.06	1.855	1.260 4066	3054	72 12 57.53	63.00
.806	.245 0865	3200	71 20 17.53	66.00	.856	.260 7119	3051	72 14 00.50	62.94
.807	.245 4064	3197	71 21 23.50	65.94	.857	.261 0169	3048	72 15 03.41	62.88
.808	.245 7259	3194	71 22 29.41	65.88	.858	.261 3216	3046	72 16 06.26	62.82
.809	.246 0451	3191	71 23 35.26	65.81	.859	.261 6260	3043	72 17 09.05	62.76
1.810	1.246 3640	3188	71 24 41.04	65.75	1.860	1.261 9302	3040	72 18 11.78	62.70
.811	.246 6827	3185	71 25 46.76	65.69	.861	.262 2340	3037	72 19 14.45	62.64
.812	.247 0010	3182	71 26 52.42	65.63	.862	.262 5375	3034	72 20 17.06	62.58
.813	.247 3190	3179	71 27 58.01	65.56	.863	.262 8408	3031	72 21 19.61	62.52
.814	.247 6367	3176	71 29 03.54	65.50	.864	.263 1438	3028	72 22 22.10	62.46
1.815	1.247 9541	3173	71 30 09.02	65.44	1.865	1.263 4464	3025	72 23 24.54	62.40
.816	.248 2712	3170	71 31 14.42	65.38	.866	.263 7488	3022	72 24 26.91	62.34
.817	.248 5880	3167	71 32 19.77	65.32	.867	.264 0509	3020	72 25 29.22	62.28
.818	.248 9046	3164	71 33 25.06	65.25	.868	.264 3527	3017	72 26 31.47	62.22
.819	.249 2208	3161	71 34 30.28	65.19	.869	.264 6543	3014	72 27 33.67	62.16
1.820	1.249 5367	3158	71 35 35.44	65.13	1.870	1.264 9555	3011	72 28 35.80	62.11
.821	.249 8523	3155	71 36 40.54	65.07	.871	.265 2565	3008	72 29 37.88	62.05
.822	.250 1676	3152	71 37 45.58	65.01	.872	.265 5571	3005	72 30 39.90	61.99
.823	.250 4826	3149	71 38 50.56	64.95	.873	.265 8575	3002	72 31 41.85	61.93
.824	.250 7973	3146	71 39 55.47	64.88	.874	.266 1576	2999	72 32 43.75	61.87
1.825	1.251 1118	3143	71 41 00.32	64.82	1.875	1.266 4574	2997	72 33 45.59	61.81
.826	.251 4259	3140	71 42 05.11	64.76	.876	.266 7569	2994	72 34 47.37	61.75
.827	.251 7397	3137	71 43 09.84	64.70	.877	.267 0562	2991	72 35 49.09	61.69
.828	.252 0532	3134	71 44 14.51	64.64	.878	.267 3551	2988	72 36 50.75	61.63
.829	.252 3664	3131	71 45 19.12	64.58	.879	.267 6538	2985	72 37 52.36	61.57
1.830	1.252 6794	3128	71 46 23.67	64.52	1.880	1.267 9521	2982	72 38 53.90	61.52
.831	.252 9920	3125	71 47 28.15	64.45	.881	.268 2502	2980	72 39 55.39	61.46
.832	.253 3043	3122	71 48 32.57	64.39	.882	.268 5480	2977	72 40 56.82	61.40
.833	.253 6164	3119	71 49 36.94	64.33	.883	.268 8456	2974	72 41 58.19	61.34
.834	.253 9281	3116	71 50 41.24	64.27	.884	.269 1428	2971	72 42 59.50	61.28
1.835	1.254 2396	3113	71 51 45.48	64.21	1.885	1.269 4398	2968	72 44 00.75	61.22
.836	.254 5507	3110	71 52 49.66	64.15	.886	.269 7364	2965	72 45 01.94	61.16
.837	.254 8616	3107	71 53 53.77	64.09	.887	.270 0328	2962	72 46 03.08	61.11
.838	.255 1721	3104	71 54 57.83	64.03	.888	.270 3289	2960	72 47 04.15	61.05
.839	.255 4824	3101	71 56 01.83	63.97	.889	.270 6248	2957	72 48 05.17	60.99
1.840	1.255 7923	3098	71 57 05.76	63.91	1.890	1.270 9203	2954	72 49 06.13	60.93
.841	.256 1020	3095	71 58 09.64	63.84	.891	.271 2156	2951	72 50 07.03	60.87
.842	.256 4114	3092	71 59 13.45	63.78	.892	.271 5106	2948	72 51 07.88	60.81
.843	.256 7205	3089	72 00 17.21	63.72	.893	.271 8053	2946	72 52 08.66	60.76
.844	.257 0293	3086	72 01 20.90	63.66	.894	.272 0997	2943	72 53 09.39	60.70
1.845	1.257 3378	3084	72 02 24.53	63.60	1.895	1.272 3938	2940	72 54 10.06	60.64
.846	.257 6460	3081	72 03 28.10	63.54	.896	.272 6877	2937	72 55 10.67	60.58
.847	.257 9539	3078	72 04 31.61	63.48	.897	.272 9812	2934	72 56 11.23	60.52
.848	.258 2615	3075	72 05 35.06	63.42	.898	.273 2745	2932	72 57 11.72	60.47
.849	.258 5688	3072	72 06 38.45	63.36	.899	.273 5675	2929	72 58 12.16	60.41
1.850	1.258 8759	3069	72 07 41.78	63.30	1.900	1.273 8603	2926	72 59 12.54	60.35
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
1.900	1.273 8603	2926	72 59 12.54	60.35	1.950	1.288 1451	2789	73 48 19.01	57.53
.901	.274 1527	2923	73 00 12.86	60.29	.951	.288 4239	2786	73 49 16.51	57.47
.902	.274 4449	2920	73 01 13.13	60.24	.952	.288 7024	2784	73 50 13.95	57.42
.903	.274 7368	2918	73 02 13.33	60.18	.953	.288 9806	2781	73 51 11.34	57.36
.904	.275 0284	2915	73 03 13.48	60.12	.954	.289 2586	2778	73 52 08.68	57.31
1.905	1.275 3197	2912	73 04 13.58	60.06	1.955	1.289 5363	2776	73 53 05.96	57.25
.906	.275 6108	2909	73 05 13.61	60.01	.956	.289 8137	2773	73 54 03.18	57.20
.907	.275 9016	2906	73 06 13.59	59.95	.957	.290 0909	2770	73 55 00.35	57.14
.908	.276 1921	2904	73 07 13.51	59.89	.958	.290 3678	2768	73 55 57.46	57.09
.909	.276 4823	2901	73 08 13.37	59.83	.959	.290 6444	2765	73 56 54.52	57.03
1.910	1.276 7722	2898	73 09 13.18	59.78	1.960	1.290 9208	2762	73 57 51.53	56.98
.911	.277 0619	2895	73 10 12.92	59.72	.961	.291 1969	2760	73 58 48.48	56.92
.912	.277 3513	2893	73 11 12.62	59.66	.962	.291 4727	2757	73 59 45.38	56.87
.913	.277 6404	2890	73 12 12.25	59.61	.963	.291 7483	2754	74 00 42.22	56.81
.914	.277 9292	2887	73 13 11.83	59.55	.964	.292 0236	2752	74 01 39.00	56.76
1.915	1.278 2178	2884	73 14 11.35	59.49	1.965	1.292 2987	2749	74 02 35.73	56.70
.916	.278 5061	2881	73 15 10.81	59.43	.966	.292 5734	2746	74 03 32.41	56.65
.917	.278 7941	2879	73 16 10.22	59.38	.967	.292 8480	2744	74 04 29.03	56.60
.918	.279 0818	2876	73 17 09.56	59.32	.968	.293 1222	2741	74 05 25.60	56.54
.919	.279 3693	2873	73 18 08.86	59.26	.969	.293 3962	2739	74 06 22.12	56.49
1.920	1.279 6565	2870	73 19 08.09	59.21	1.970	1.293 6699	2736	74 07 18.58	56.43
.921	.279 9434	2868	73 20 07.27	59.15	.971	.293 9434	2733	74 08 14.98	56.38
.922	.280 2300	2865	73 21 06.39	59.09	.972	.294 2166	2731	74 09 11.33	56.32
.923	.280 5164	2862	73 22 05.46	59.04	.973	.294 4895	2728	74 10 07.63	56.27
.924	.280 8024	2859	73 23 04.47	58.98	.974	.294 7622	2725	74 11 03.87	56.22
1.925	1.281 0883	2857	73 24 03.42	58.92	1.975	1.295 0346	2723	74 12 00.06	56.16
.926	.281 3738	2854	73 25 02.32	58.87	.976	.295 3068	2720	74 12 56.20	56.11
.927	.281 6590	2851	73 26 01.16	58.81	.977	.295 5786	2718	74 13 52.28	56.05
.928	.281 9440	2849	73 26 59.94	58.76	.978	.295 8503	2715	74 14 48.30	56.00
.929	.282 2288	2846	73 27 58.67	58.70	.979	.296 1216	2712	74 15 44.28	55.95
1.930	1.282 5132	2843	73 28 57.34	58.64	1.980	1.296 3927	2710	74 16 40.20	55.89
.931	.282 7974	2840	73 29 55.95	58.59	.981	.296 6636	2707	74 17 36.06	55.84
.932	.283 0813	2838	73 30 54.51	58.53	.982	.296 9342	2705	74 18 31.87	55.78
.933	.283 3649	2835	73 31 53.01	58.47	.983	.297 2045	2702	74 19 27.63	55.73
.934	.283 6482	2832	73 32 51.46	58.42	.984	.297 4745	2699	47 20 23.34	55.68
1.935	1.283 9313	2829	73 33 49.85	58.36	1.985	1.297 7443	2697	74 21 18.99	55.62
.936	.284 2141	2827	73 34 48.18	58.31	.986	.298 0139	2694	74 22 14.58	55.57
.937	.284 4967	2824	73 35 46.46	58.25	.987	.298 2832	2692	74 23 10.13	55.52
.938	.284 7789	2821	73 36 44.68	58.19	.988	.298 5522	2689	74 24 05.62	55.46
.939	.285 0609	2819	73 37 42.85	58.14	.989	.298 8210	2686	74 25 01.05	55.41
1.940	1.285 3427	2816	73 38 40.96	58.08	1.990	1.299 0895	2684	74 25 56.44	55.36
.941	.285 6241	2813	73 39 39.01	58.03	.991	.299 3577	2681	74 26 51.77	55.30
.942	.285 9053	2811	73 40 37.01	57.97	.992	.299 6257	2679	74 27 47.04	55.25
.943	.286 1862	2808	73 41 34.95	57.92	.993	.299 8934	2676	74 28 42.27	55.20
.944	.286 4669	2805	73 42 32.84	57.86	.994	.300 1609	2673	74 29 37.44	55.14
1.945	1.286 7473	2802	73 43 30.68	57.80	1.995	1.300 4281	2671	74 30 32.55	55.09
.946	.287 0274	2800	73 44 28.45	57.75	.996	.300 6951	2668	74 31 27.62	55.04
.947	.287 3072	2797	73 45 26.17	57.69	.997	.300 9618	2666	74 32 22.63	54.98
.948	.287 5868	2794	73 46 23.84	57.64	.998	.301 2282	2663	74 33 17.59	54.93
.949	.287 8661	2792	73 47 21.45	57.58	.999	.301 4944	2661	74 34 12.49	54.88
1.950	1.288 1451	2789	73 48 19.01	57.53	2.000	1.301 7603	2658	74 35 07.34	54.83
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
2.000	1.301 7603	2658	74 35 07.34	54.83	2.050	1.314 7349	2533	75 19 43.53	52.24
.001	.302 0260	2655	74 36 02.14	54.77	.051	.314 9880	2530	75 20 35.75	52.19
.002	.302 2914	2653	74 36 56.89	54.72	.052	.315 2409	2528	75 21 27.91	52.14
.003	.302 5566	2650	74 37 51.58	54.67	.053	.315 4936	2525	75 22 20.03	52.09
.004	.302 8215	2648	74 38 46.22	54.61	.054	.315 7460	2523	75 23 12.09	52.04
2.005	1.303 0861	2645	74 39 40.81	54.56	2.055	1.315 9982	2520	75 24 04.11	51.99
.006	.303 3505	2643	74 40 35.35	54.51	.056	.316 2501	2518	75 24 56.07	51.94
.007	.303 6147	2640	74 41 29.83	54.46	.057	.316 5018	2516	75 25 47.98	51.89
.008	.303 8786	2638	74 42 24.26	54.40	.058	.316 7532	2513	75 26 39.85	51.84
.009	.304 1422	2635	74 43 18.64	54.35	.059	.317 0044	2511	75 27 31.66	51.79
2.010	1.304 4056	2633	74 44 12.97	54.30	2.060	1.317 2554	2508	75 28 23.42	51.74
.011	.304 6687	2630	74 45 07.24	54.25	.061	.317 5061	2506	75 29 15.14	51.69
.012	.304 9316	2627	74 46 01.46	54.19	.062	.317 7566	2503	75 30 06.80	51.64
.013	.305 1942	2625	74 46 55.63	54.14	.063	.318 0068	2501	75 30 58.41	51.59
.014	.305 4566	2622	74 47 49.74	54.09	.064	.318 2568	2499	75 31 49.98	51.54
2.015	1.305 7187	2620	74 48 43.81	54.04	2.065	1.318 5065	2496	75 32 41.49	51.49
.016	.305 9805	2617	74 49 37.82	53.99	.066	.318 7560	2494	75 33 32.95	51.44
.017	.306 2421	2615	74 50 31.78	53.93	.067	.319 0053	2491	75 34 24.37	51.39
.018	.306 5035	2612	74 51 25.69	53.88	.068	.319 2543	2489	75 35 15.73	51.34
.019	.306 7646	2610	74 52 19.54	53.83	.069	.319 5031	2487	75 36 07.04	51.29
2.020	1.307 0254	2607	74 53 13.35	53.78	2.070	1.319 7516	2484	75 36 58.31	51.24
.021	.307 2860	2605	74 54 07.10	53.73	.071	.319 9999	2482	75 37 49.52	51.19
.022	.307 5464	2602	74 55 00.80	53.67	.072	.320 2480	2479	75 38 40.69	51.14
.023	.307 8065	2600	74 55 54.45	53.62	.073	.320 4958	2477	75 39 31.80	51.09
.024	.308 0663	2597	74 56 48.05	53.57	.074	.320 7433	2475	75 40 22.87	51.04
2.025	1.308 3259	2595	74 57 41.59	53.52	2.075	1.320 9907	2472	75 41 13.89	50.99
.026	.308 5853	2592	74 58 35.08	53.47	.076	.321 2378	2470	75 42 04.85	50.94
.027	.308 8443	2590	74 59 28.52	53.42	.077	.321 4846	2467	75 42 55.77	50.89
.028	.309 1032	2587	75 00 21.91	53.36	.078	.321 7312	2465	75 43 46.64	50.84
.029	.309 3618	2585	75 01 15.25	53.31	.079	.321 9776	2463	75 44 37.46	50.79
2.030	1.309 6201	2582	75 02 08.54	53.26	2.080	1.322 2238	2460	75 45 28.23	50.75
.031	.309 8782	2580	75 03 01.78	53.21	.081	.322 4697	2458	75 46 18.95	50.70
.032	.310 1361	2577	75 03 54.96	53.16	.082	.322 7153	2455	75 47 09.62	50.65
.033	.310 3936	2575	75 04 48.09	53.11	.083	.322 9608	2453	75 48 00.24	50.60
.034	.310 6510	2572	75 05 41.17	53.06	.084	.323 2059	2451	75 48 50.82	50.55
2.035	1.310 9081	2570	75 06 34.20	53.00	2.085	1.323 4509	2448	75 49 41.34	50.50
.036	.311 1649	2567	75 07 27.18	52.95	.086	.323 6956	2446	75 50 31.82	50.45
.037	.311 4215	2565	75 08 20.11	52.90	.087	.323 9401	2444	75 51 22.25	50.40
.038	.311 6779	2562	75 09 12.99	52.85	.088	.324 1843	2441	75 52 12.62	50.35
.039	.311 9340	2560	75 10 05.81	52.80	.089	.324 4283	2439	75 53 02.95	50.30
2.040	1.312 1898	2557	75 10 58.59	52.75	2.090	1.324 6721	2436	75 53 53.23	50.26
.041	.312 4455	2555	75 11 51.31	52.70	.091	.324 9156	2434	75 54 43.46	50.21
.042	.312 7008	2552	75 12 43.98	52.65	.092	.325 1589	2432	75 55 33.65	50.16
.043	.312 9559	2550	75 13 36.60	52.60	.093	.325 4020	2429	75 56 23.78	50.11
.044	.313 2108	2547	75 14 29.17	52.55	.094	.325 6448	2427	75 57 13.86	50.06
2.045	1.313 4654	2545	75 15 21.69	52.49	2.095	1.325 8874	2425	75 58 03.90	50.01
.046	.313 7198	2543	75 16 14.16	52.44	.096	.326 1297	2422	75 58 53.89	49.96
.047	.313 9739	2540	75 17 06.58	52.39	.097	.326 3718	2420	75 59 43.83	49.92
.048	.314 2278	2538	75 17 58.95	52.34	.098	.326 6137	2418	76 00 33.72	49.87
.049	.314 4815	2535	75 18 51.27	52.29	.099	.326 8554	2415	76 01 23.56	49.82
2.050	1.314 7349	2533	75 19 43.53	52.24	2.100	1.327 0968	2413	76 02 13.36	49.77
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u ° ′ ″	ωF₀′ ″	u	gd u	ωF₀′	gd u ° ′ ″	ωF₀′ ″
2.100	1.327 0968	2413	76 02 13.36	49.77	2.150	1.338 8732	2298	76 42 42.42	47.41
.101	.327 3380	2411	76 03 03.11	49.72	.151	.339 1029	2296	76 43 29.81	47.36
.102	.327 5789	2408	76 03 52.80	49.67	.152	.339 3325	2294	76 44 17.15	47.32
.103	.327 8196	2406	76 04 42.45	49.63	.153	.339 5617	2292	76 45 04.44	47.27
.104	.328 0601	2404	76 05 32.06	49.58	.154	.339 7908	2290	76 45 51.69	47.23
2.105	1.328 3003	2401	76 06 21.61	49.53	2.155	1.340 0197	2287	76 46 38.89	47.18
.106	.328 5403	2399	76 07 11.11	49.48	.156	.340 2483	2285	76 47 26.05	47.13
.107	.328 7801	2397	76 08 00.57	49.43	.157	.340 4767	2283	76 48 13.16	47.09
.108	.329 0197	2394	76 08 49.98	49.39	.158	.340 7049	2281	76 49 00.23	47.04
.109	.329 2590	2392	76 09 39.34	49.34	.159	.340 9328	2278	76 49 47.25	47.00
2.110	1.329 4980	2390	76 10 28.66	49.29	2.160	1.341 1605	2276	76 50 34.22	46.95
.111	.329 7369	2387	76 11 17.92	49.24	.161	.341 3881	2274	76 51 21.15	46.90
.112	.329 9755	2385	76 12 07.14	49.19	.162	.341 6153	2272	76 52 08.03	46.86
.113	.330 2139	2383	76 12 56.31	49.15	.163	.341 8424	2270	76 52 54.87	46.81
.114	.330 4520	2380	76 13 45.43	49.10	.164	.342 0693	2267	76 53 41.66	46.77
2.115	1.330 6900	2378	76 14 34.51	49.05	2.165	1.342 2959	2265	76 54 28.40	46.72
.116	.330 9277	2376	76 15 23.54	49.00	.166	.342 5223	2263	76 55 15.10	46.68
.117	.331 1651	2373	76 16 12.52	48.96	.167	.342 7485	2261	76 56 01.76	46.63
.118	.331 4023	2371	76 17 01.45	48.91	.168	.342 9744	2259	76 56 48.36	46.59
.119	.331 6393	2369	76 17 50.33	48.86	.169	.343 2002	2256	76 57 34.93	46.54
2.120	1.331 8761	2367	76 18 39.17	48.81	2.170	1.343 4257	2254	76 58 21.45	46.50
.121	.332 1127	2364	76 19 27.96	48.77	.171	.343 6510	2252	76 59 07.92	46.45
.122	.332 3490	2362	76 20 16.70	48.72	.172	.343 8761	2250	76 59 54.35	46.41
.123	.332 5850	2360	76 21 05.40	48.67	.173	.344 1010	2248	77 00 40.73	46.36
.124	.332 8209	2357	76 21 54.04	48.62	.174	.344 3256	2245	77 01 27.07	46.31
2.125	1.333 0565	2355	76 22 42.64	48 58	2.175	1.344 5501	2243	77 02 13.36	46.27
.126	.333 2919	2353	76 23 31.20	48.53	.176	.344 7743	2241	77 02 59.61	46.22
.127	.333 5271	2350	76 24 19.70	48.48	.177	.344 9983	2239	77 03 45.81	46.18
.128	.333 7620	2348	76 25 08.16	48.44	.178	.345 2220	2237	77 04 31.96	46.13
.129	.333 9967	2346	76 25 56.57	48.39	.179	.345 4456	2234	77 05 18.08	46.09
2.130	1.334 2312	2344	76 26 44.94	48.34	2.180	1.345 6689	2232	77 06 04.14	46.04
.131	.334 4654	2341	76 27 33.26	48.29	.181	.345 8921	2230	77 06 50.17	46.00
.132	.334 6995	2339	70 28 21.53	48.25	.182	.346 1150	2228	77 07 36.14	45.95
.133	.334 9333	2337	76 29 09.75	48.20	.183	.346 3377	2226	77 08 22.08	45.91
.134	.335 1668	2335	76 29 57.93	48.15	.184	.346 5601	2224	77 09 07.96	45.87
2.135	1.335 4002	2332	76 30 46.06	48.11	2.185	1.346 7824	2221	77 09 53.81	45.82
.136	.335 6333	2330	76 31 34.14	48.06	.186	.347 0044	2219	77 10 39.60	45.78
.137	.335 8662	2328	76 32 22.18	48.01	.187	.347 2262	2217	77 11 25.36	45.73
.138	.336 0988	2325	75 33 10.17	47.97	.188	.347 4478	2215	77 12 11.07	45.69
.139	.336 3313	2323	76 33 58.11	47.92	.189	.347 6692	2213	77 12 56.73	45.64
2.140	1.336 5635	2321	76 34 46.01	47.87	2.190	1.347 8904	2211	77 13 42.35	45.60
.141	.336 7955	2319	76 35 33.86	47.83	.191	.348 1114	2208	77 14 27.93	45.55
.142	.337 0272	2316	76 36 21.66	47.78	.192	.348 3321	2206	77 15 13.46	45.51
.143	.337 2588	2314	76 37 09.42	47.73	.193	.348 5526	2204	77 15 58.95	45.46
.144	.337 4901	2312	76 37 57.13	47.69	.194	.348 7729	2202	77 16 44.39	45.42
2.145	1.337 7212	2310	76 38 44.79	47.64	2.195	1.348 9930	2200	77 17 29.79	45.38
.146	.337 9520	2307	76 39 32.41	47.59	.196	.349 2129	2198	77 18 15.14	45.33
.147	.338 1826	2305	76 40 19.98	47.55	.197	.349 4326	2196	77 19 00.45	45.29
.148	.338 4131	2303	76 41 07.51	47.50	.198	.349 6520	2193	77 19 45.72	45.24
.149	.338 6432	2301	76 41 54.99	47.46	.199	.349 8713	2191	77 20 30.94	45.20
2.150	1.338 8732	2298	76 42 42.42	47.41	2.200	1.350 0903	2189	77 21 16.11	45.16
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
2.200	1.350 0903	2189	77 21 16.11	45.16	2.250	1.360 7733	2085	77 57 59.64	43.00
.201	.350 3091	2187	77 22 01.25	45.11	.251	.360 9817	2083	77 58 42.62	42.96
.202	.350 5277	2185	77 22 46.34	45.07	.252	.361 1899	2081	77 59 25.56	42.92
.203	.350 7461	2183	77 23 31.38	45.02	.253	.361 3978	2079	78 00 08.46	42.88
.204	.350 9643	2181	77 24 16.38	44.98	.254	.361 6056	2077	78 00 51.32	42.83
2.205	1.351 1822	2179	77 25 01.34	44.94	2.255	1.361 8132	2075	78 01 34.13	42.79
.206	.351 4000	2176	77 25 46.25	44.89	.256	.362 0205	2073	78 02 16.90	42.75
.207	.351 6175	2174	77 26 31.12	44.85	.257	.362 2277	2071	78 02 59.63	42.71
.208	.351 8348	2172	77 27 15.95	44.80	.258	.362 4347	2069	78 03 42.32	42.67
.209	.352 0519	2170	77 28 00.73	44.76	.259	.362 6414	2067	78 04 24.97	42.63
2.210	1.352 2688	2168	77 28 45.47	44.72	2.260	1.362 8480	2065	78 05 07.57	42.58
.211	.352 4855	2166	77 29 30.16	44.67	.261	.363 0543	2063	78 05 50.13	42.54
.212	.352 7020	2164	77 30 14.82	44.63	.262	.363 2605	2060	78 06 32.66	42.50
.213	.352 9183	2162	77 30 59.42	44.59	.263	.363 4664	2058	78 07 15.14	42.46
.214	.353 1343	2159	77 31 43.99	44.54	.264	.363 6722	2056	78 07 57.57	42.42
2.215	1.353 3502	2157	77 32 28.51	44.50	2.265	1.363 8777	2054	78 08 39.97	42.38
.216	.353 5658	2155	77 33 12.99	44.46	.266	.364 0831	2052	78 09 22.33	42.33
.217	.353 7812	2153	77 33 57.42	44.41	.267	.364 2882	2050	78 10 04.64	42.29
.218	.353 9964	2151	77 34 41.81	44.37	.268	.364 4931	2048	78 10 46.91	42.25
.219	.354 2114	2149	77 35 26.16	44.33	.269	.364 6979	2046	78 11 29.14	42.21
2.220	1.354 4262	2147	77 36 10.46	44.28	2.270	1.364 9024	2044	78 12 11.33	42.17
.221	.354 6408	2145	77 36 54.72	44.24	.271	.365 1068	2042	78 12 53.48	42.13
.222	.354 8552	2143	77 37 38.94	44.20	.272	.365 3109	2040	78 13 35.59	42.09
.223	.355 0693	2141	77 38 23.11	44.15	.273	.365 5149	2038	78 14 17.66	42.05
.224	.355 2833	2138	77 39 07.24	44.11	.274	.365 7186	2036	78 14 59.68	42.00
2.225	1.355 4970	2136	77 39 51.33	44.07	2.275	1.365 9221	2034	78 15 41.66	41.96
.226	.355 7106	2134	77 40 35.38	44.02	.276	.366 1255	2032	78 16 23.61	41.92
.227	.355 9239	2132	77 41 19.38	43.98	.277	.366 3286	2030	78 17 05.51	41.88
.228	.356 1370	2130	77 42 03.34	43.94	.278	.366 5316	2028	78 17 47.37	41.84
.229	.356 3499	2128	77 42 47.25	43.89	.279	.366 7343	2026	78 18 29.19	41.80
2.230	1.356 5626	2126	77 43 31.13	43.85	2.280	1.366 9369	2024	78 19 10.97	41.76
.231	.356 7751	2124	77 44 14.96	43.81	.281	.367 1392	2023	78 19 52.71	41.72
.232	.356 9874	2122	77 44 58.74	43.77	.282	.367 3414	2021	78 20 34.40	41.68
.233	.357 2095	2120	77 45 42.49	43.72	.283	.367 5433	2019	78 21 16.06	41.64
.234	.357 4114	2118	77 46 26.19	43.68	.284	.367 7451	2017	78 21 57.68	41.60
2.235	1.357 6230	2116	77 47 09.85	43.64	2.285	1.367 9466	2015	78 22 39.25	41.55
.236	.357 8345	2114	77 47 53.47	43.60	.286	.368 1480	2013	78 23 20.78	41.51
.237	.358 0457	2111	77 48 37.04	43.55	.287	.368 3492	2011	78 24 02.28	41.47
.238	.358 2568	2109	77 49 20.57	43.51	.288	.368 5501	2009	78 24 43.73	41.43
.239	.358 4676	2107	77 50 04.06	43.47	.289	.368 7509	2007	78 25 25.14	41.39
2.240	1.358 6783	2105	77 50 47.51	43.43	2.290	..368 9515	2005	78 26 06.51	41.35
.241	.358 8887	2103	77 51 30.91	43.38	.291	.369 1519	2003	78 26 47.85	41.31
.242	.359 0989	2101	77 52 14.27	43.34	.292	.369 3521	2001	78 27 29.14	41.27
.243	.359 3089	2099	77 52 57.59	43.30	.293	.369 5520	1999	78 28 10.39	41.23
.244	.359 5187	2097	77 53 40.87	43.26	.294	.369 7518	1997	78 28 51.60	41.19
2.245	1.359 7283	2095	77 54 24.10	43.21	2.295	1.369 9514	1995	78 29 32.77	41.15
.246	.359 9377	2093	77 55 07.29	43.17	.296	.370 1508	1993	78 30 13.89	41.11
.247	.360 1469	2091	77 55 50.44	43.13	.297	.370 3500	1991	78 30 54.98	41.07
.248	.360 3559	2089	77 56 33.55	43.09	.298	.370 5490	1989	78 31 36.03	41.03
.249	.360 5647	2087	77 57 16.62	43.04	.299	.370 7479	1987	78 32 17.04	40.99
2.250	1.360 7733	2085	77 57 59.64	43.00	2.300	1.370 9465	1985	78 32 58.01	40.95
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
2.300	1.370 9465	1985	78 32 58.01	40.95	2.350	1.380 6331	1890	79 06 16.03	38.99
.301	.371 1449	1983	78 33 38.94	40.91	.351	.380 8221	1888	79 06 55.00	38.95
.302	.371 3431	1981	78 34 19.82	40.87	.352	.381 0108	1886	79 07 33.93	38.91
.303	.371 5412	1979	78 35 00.67	40.83	.353	.381 1994	1885	79 08 12.82	38.87
.304	.371 7390	1977	78 35 41.48	40.79	.354	.381 3877	1883	79 08 51.67	38.84
2.305	1.371 9367	1975	78 36 22.25	40.75	2.355	1.381 5759	1881	79 09 30.49	38.80
.306	.372 1341	1974	78 37 02.98	40.71	.356	.381 7639	1879	79 10 09.27	38.76
.307	.372 3314	1972	78 37 43.66	40.66	.357	.381 9517	1877	79 10 48.01	38.72
.308	.372 5284	1970	78 38 24.31	40.63	.358	.382 1394	1875	79 11 26.71	38.08
.309	.372 7253	1968	78 39 04.92	40.59	.359	.382 3268	1874	79 12 05.37	38.64
2.310	1.372 9220	1966	78 39 45.49	40.55	2.360	1.382 5141	1872	79 12 44.00	38.61
.311	.373 1185	1964	78 40 26.02	40.51	.361	.382 7012	1870	79 13 22.59	38.57
.312	.373 3148	1962	78 41 06.51	40.47	.362	.382 8881	1868	79 14 01.14	38.53
.313	.373 5109	1960	78 41 46.96	40.43	.363	.383 0748	1866	79 14 39.65	38.49
.314	.373 7068	1958	78 42 27.37	40.39	.364	.383 2613	1864	79 15 18.12	38.46
2.315	1.373 9025	1956	78 43 07.74	40.35	2.365	1.383 4476	1863	79 15 56.56	38.42
.316	.374 0980	1954	78 43 48.07	40.31	.366	.383 6338	1861	79 16 34.96	38.38
.317	.374 2934	1952	78 44 28.36	40.27	.367	.383 8198	1859	79 17 13.32	38.34
.318	.374 4885	1950	78 45 08.61	40.23	.368	.384 0056	1857	79 17 51.64	38.30
.319	.374 6835	1949	78 45 48.82	40.19	.369	.384 1912	1855	79 18 29.93	38.27
2.320	1.374 8782	1947	78 46 28.99	40.15	2.370	1.384 3766	1853	79 19 08.18	38.23
.321	.375 0728	1945	78 47 09.13	40.11	.371	.384 5619	1852	79 19 46.39	38.19
.322	.375 2672	1943	78 47 49.22	40.07	.372	.384 7470	1850	79 20 24.56	38.15
.323	.375 4614	1941	78 48 29.28	40.04	.373	.384 9318	1848	79 21 02.70	38.12
.324	.375 6554	1939	78 49 09.29	40.00	.374	.385 1165	1846	79 21 40.80	38.08
2.325	1.375 8492	1937	78 49 49.27	39.96	2.375	1.385 3011	1844	79 22 18.86	38.04
.326	.376 0428	1935	78 50 29.21	39.92	.376	.385 4854	1843	79 22 56.88	38.00
.327	.376 2362	1933	78 51 09.10	39.88	.377	.385 6696	1841	79 23 34.87	37.97
.328	.376 4295	1931	78 51 48.96	39.84	.378	.385 8536	1839	79 24 12.81	37.93
.329	.376 6225	1930	78 52 28.78	39.80	.379	.386 0374	1837	79 24 50.73	37.89
2.330	1.376 8154	1928	78 53 08.56	39.76	2.380	1.386 2210	1835	79 25 28.60	37.86
.331	.377 0081	1926	78 53 48.30	39.72	.381	.386 4044	1833	79 26 06.44	37.82
.332	.377 2006	1924	78 54 28.01	39.68	.382	.386 5877	1832	79 26 44.24	37.78
.333	.377 3929	1922	78 55 07.67	39.64	.383	.386 7708	1830	79 27 22.00	37.74
.334	.377 5850	1920	78 55 47.29	39.61	.384	.386 9537	1828	79 27 59.73	37.71
2.335	1.377 7769	1918	78 56 26.88	39.57	2.385	1.387 1364	1826	79 28 37.41	37.67
.336	.377 9686	1916	78 57 06.43	39.53	.386	.387 3189	1824	79 29 15.07	37.63
.337	.378 1601	1914	78 57 45.94	39.49	.387	.387 5013	1823	79 29 52.68	37.60
.338	.378 3515	1913	78 58 25.40	39.45	.388	.387 6834	1821	79 30 30.26	37.56
.339	.378 5427	1911	78 59 04.84	39.41	.389	.387 8655	1819	79 31 07.80	37.52
2.340	1.378 7336	1909	78 59 44.23	39.37	2.390	1.388 0473	1817	79 31 45.30	37.49
.341	.378 9244	1907	79 00 23.58	39.33	.391	.388 2289	1816	79 32 22.77	37.45
.342	.379 1150	1905	79 01 02.89	39.30	.392	.388 4104	1814	79 33 00.20	37.41
.343	.379 3054	1903	79 01 42.17	39.26	.393	.388 5917	1812	79 33 37.59	37.37
.344	.379 4957	1901	79 02 21.41	39.22	.394	.388 7728	1810	79 34 14.95	37.34
2.345	1.379 6857	1899	79 03 00.61	39.18	2.395	1.388 9537	1808	79 34 52.27	37.30
.346	.379 8756	1898	79 03 39.77	39.14	.396	.389 1345	1807	79 35 29.55	37.26
.347	.380 0652	1896	79 04 18.89	39.10	.397	.389 3150	1805	79 36 06.80	37.23
.348	.380 2547	1894	79 04 57.97	39.06	.398	.389 4954	1803	79 36 44.01	37.19
.349	.380 4440	1892	79 05 37.02	39.03	.399	.389 6757	1801	79 37 21.18	37.15
2.350	1.380 6331	1890	79 06 16.03	38.99	2.400	1.389 8557	1800	79 37 58.32	37.12
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
2.400	1.389 8557	1800	79 37 58.32	37.12	2.450	1.398 6356	1713	80 08 09.31	35.34
.401	.390 0356	1798	79 38 35.42	37.08	.451	.398 8069	1711	80 08 44.63	35.30
.402	.390 2153	1796	79 39 12.48	37.05	.452	.398 9779	1710	80 09 19.91	35.27
.403	.390 3948	1794	79 39 49.51	37.01	.453	.399 1488	1708	80 09 55.16	35.23
.404	.390 5741	1792	79 40 26.50	36.97	.454	.399 3195	1706	80 10 30.37	35.20
2.405	1.390 7533	1791	79 41 03.45	36.94	2.455	1.399 4901	1705	80 11 05.55	35.16
.406	.390 9323	1789	79 41 40.37	36.90	.456	.399 6605	1703	80 11 40.70	35.13
.407	.391 1111	1787	79 42 17.25	36.86	.457	.399 8307	1701	80 12 15.81	35.09
.408	.391 2897	1785	79 42 54.10	36.83	.458	.400 0007	1700	80 12 50.88	35.06
.409	.391 4681	1784	79 43 30.91	36.79	.459	.400 1706	1698	80 13 25.92	35.02
2.410	1.391 6464	1782	79 44 07.68	36.75	2.460	1.400 3403	1696	80 14 00.93	34.99
.411	.391 8245	1780	79 44 44.42	36.72	.461	.400 5099	1695	80 14 35.90	34.95
.412	.392 0025	1778	79 45 21.12	36.68	.462	.400 6793	1693	80 15 10.84	34.92
.413	.392 1802	1777	79 45 57.78	36.65	.463	.400 8485	1691	80 15 45.74	34.89
.414	.392 3578	1775	79 46 34.41	36.61	.464	.401 0175	1690	80 16 20.61	34.85
2.415	1.392 5352	1773	79 47 11.00	36.57	2.465	1.401 1864	1688	80 16 55.45	34.82
.416	.392 7124	1771	79 47 47.56	36.54	.466	.401 3551	1686	80 17 30.25	34.78
.417	.392 8895	1770	79 48 24.08	36.50	.467	.401 5237	1685	80 18 05.01	34.75
.418	.393 0664	1768	79 49 00.57	36.47	.468	.401 6921	1683	80 18 39.74	34.71
.419	.393 2431	1766	79 49 37.02	36.43	.469	.401 8603	1681	80 19 14.44	34.68
2.420	1.393 4196	1764	79 50 13.43	36.39	2.470	1.402 0283	1680	80 19 49.10	34.65
.421	.393 5960	1763	79 50 49.80	36.36	.471	.402 1962	1678	80 20 23.73	34.61
.422	.393 7722	1761	79 51 26.15	36.32	.472	.402 3639	1676	80 20 58.33	34.58
.423	.393 9482	1759	79 52 02.45	36.29	.473	.402 5315	1675	80 21 32.89	34.54
.424	.394 1240	1758	79 52 38.72	36.25	.474	.402 6989	1673	80 22 07.41	34.51
2.425	1.394 2997	1756	79 53 14.96	36.22	2.475	1.402 8661	1672	80 22 41.91	34.48
.426	.394 4752	1754	79 53 51.15	36.18	.476	.403 0332	1670	80 23 16.36	34.44
.427	.394 6505	1752	79 54 27.32	36.14	.477	.403 2001	1668	80 23 50.79	34.41
.428	.394 8257	1751	79 55 03.44	36.11	.478	.403 3668	1666	80 24 25.18	34.37
.429	.395 0006	1749	79 55 39.54	36.07	.479	.403 5334	1665	80 24 59.54	34.34
2.430	1.395 1754	1747	79 56 15.59	36.04	2.480	1.403 6998	1663	80 25 33.86	34.31
.431	.395 3501	1745	79 56 51.61	36.00	.481	.403 8660	1662	80 26 08.15	34.27
.432	.395 5245	1744	79 57 27.60	35.97	.482	.404 0321	1660	80 26 42.40	34.24
.433	.395 6988	1742	79 58 03.55	35.93	.483	.404 1980	1658	80 27 16.62	34.20
.434	.395 8729	1740	79 58 39.46	35.90	.484	.404 3637	1657	80 27 50.81	34.17
2.435	1.396 0469	1739	79 59 15.34	35.86	2.485	1.404 5293	1655	80 28 24.97	34.14
.436	.396 2207	1737	79 59 51.19	35.83	.486	.404 6947	1653	80 28 59.09	34.10
.437	.396 3943	1735	80 00 26.99	35.79	.487	.404 8600	1652	80 29 33.17	34.07
.438	.396 5677	1733	80 01 02.77	35.76	.488	.405 0251	1650	80 30 07.23	34.04
.439	.396 7410	1732	80 01 38.51	35.72	.489	.405 1900	1648	80 30 41.25	34.00
2.440	1.396 9141	1730	80 02 14.21	35.69	2.490	1.405 3548	1647	80 31 15.23	33.97
.441	.397 0870	1728	80 02 49.88	35.65	.491	.405 5194	1645	80 31 49.19	33.94
.442	.397 2597	1727	80 03 25.51	35.62	.492	.405 6838	1644	80 32 23.10	33.90
.443	.397 4323	1725	80 04 01.11	35.58	.493	.405 8481	1642	80 32 56.99	33.87
.444	.397 6047	1723	80 04 36.67	35.54	.494	.406 0122	1640	80 33 30.84	33.84
2.445	1.397 7770	1722	80 05 12.20	35.51	2.495	1.406 1762	1639	80 34 04.66	33.80
.446	.397 9490	1720	80 05 47.69	35.48	.496	.406 3400	1637	80 34 38.45	33.77
.447	.398 1209	1718	80 06 23.15	35.44	.497	.406 5036	1636	80 35 12.20	33.74
.448	.398 2927	1716	80 06 58.57	35.41	.498	.406 6671	1634	80 35 45.92	33.70
.449	.398 4642	1715	80 07 33.96	35.37	.499	.406 8304	1632	80 36 19.60	33.67
2.450	1.398 6356	1713	80 08 09.31	35.34	2.500	1.406 9936	1631	80 36 53.26	33.64
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
2.500	1.406 9936	1631	80 36 53.26	33.64	2.550	1.414 9492	1552	81 04 14.22	32.02
.501	.407 1566	1629	80 37 26.88	33.60	.551	.415 1043	1551	81 04 46.22	31.98
.502	.407 3194	1627	80 38 00.46	33.57	.552	.415 2593	1549	81 05 18.19	31.95
.503	.407 4821	1626	80 38 34.01	33.54	.553	.415 4142	1548	81 05 50.13	31.92
.504	.407 6446	1624	80 39 07.54	33.50	.554	.415 5688	1546	81 06 22.03	31.89
2.505	1.407 8069	1623	80 39 41.02	33.47	2.555	1.415 7234	1545	81 06 53.91	31.86
.506	.407 9691	1621	80 40 14.47	33.44	.556	.415 8778	1543	81 07 25.75	31.83
.507	.408 1311	1619	80 40 47.90	33.40	.557	.416 0320	1541	81 07 57.56	31.80
.508	.408 2930	1618	80 41 21.28	33.37	.558	.416 1860	1540	81 08 29.34	31.76
.509	.408 4547	1616	80 41 54.64	33.34	.559	.416 3400	1538	81 09 01.09	31.73
2.510	1.408 6163	1615	80 42 27.96	33.31	2.560	1.416 4937	1537	81 09 32.80	31.70
.511	.408 7777	1613	80 43 01.25	33.27	.561	.416 6473	1535	81 10 04.49	31.67
.512	.408 9389	1612	80 43 34.51	33.24	.562	.416 8008	1534	81 10 36.14	31.64
.513	.409 1000	1610	80 44 07.73	33.21	.563	.416 9541	1532	81 11 07.77	31.61
.514	.409 2609	1608	80 44 40.92	33.17	.564	.417 1073	1531	81 11 39.36	31.58
2.515	1.409 4216	1607	80 45 14.08	33.14	2.565	1.417 2603	1529	81 12 10.92	31.54
.516	.409 5822	1605	80 45 47.20	33.11	.566	.417 4131	1528	81 12 42.45	31.51
.517	.409 7427	1604	80 46 20.30	33.08	.567	.417 5659	1526	81 13 13.95	31.48
.518	.409 9029	1602	80 46 53.36	33.04	.568	.417 7184	1525	81 13 45.41	31.45
.519	.410 0631	1600	80 47 26.38	33.01	.569	.417 8708	1523	81 14 16.85	31.42
2.520	1.410 2230	1599	80 47 59.38	32.98	2.570	1.418 0231	1522	81 14 48.25	31.39
.521	.410 3828	1597	80 48 32.34	32.95	.571	.418 1752	1520	81 15 19.63	31.36
.522	.410 5425	1596	80 49 05.27	32.91	.572	.418 3271	1519	81 15 50.97	31.33
.523	.410 7020	1594	80 49 38.17	32.88	.573	.418 4789	1517	81 16 22.28	31.30
.524	.410 8613	1593	80 50 11.03	32.85	.574	.418 6306	1516	81 16 53.56	31.27
2.525	1.411 0205	1591	80 50 43.86	32.82	2.575	1.418 7821	1514	81 17 24.81	31.23
.526	.411 1795	1589	80 51 16.66	32.78	.576	.418 9334	1513	81 17 56.03	31.20
.527	.411 3384	1588	80 51 49.43	32.75	.577	.419 0847	1511	81 18 27.22	31.17
.528	.411 4971	1586	80 52 22.17	32.72	.578	.419 2357	1510	81 18 58.38	31.14
.529	.411 6556	1585	80 52 54.87	32.69	.579	.419 3866	1508	81 19 29.50	31.11
2.530	1.411 8140	1583	80 53 27.54	32.65	2.580	1.419 5374	1507	81 20 00.60	31.08
.531	.411 9722	1582	80 54 00.18	32.62	.581	.419 6880	1505	81 20 31.67	31.05
.532	.412 1303	1580	80 54 32.78	32.59	.582	.419 8384	1504	81 21 02.70	31.02
.533	.412 2882	1578	80 55 05.36	32.56	.583	.419 9888	1502	81 21 33.70	30.99
.534	.412 4460	1577	80 55 37.90	32.53	.584	.420 1389	1501	81 22 04.68	30.96
2.535	1.412 6036	1575	80 56 10.41	32.49	2.585	1.420 2889	1499	81 22 35.62	30.93
.536	.412 7611	1574	80 56 42.89	32.46	.586	.420 4388	1498	81 23 06.53	30.90
.537	.412 9184	1572	80 57 15.33	32.43	.587	.420 5885	1496	81 23 37.41	30.87
.538	.413 0755	1571	80 57 47.75	32.40	.588	.420 7381	1495	81 24 08.26	30.84
.539	.413 2325	1569	80 58 20.13	32.37	.589	.420 8875	1493	81 24 39.09	30.81
2.540	1.413 3893	1568	80 58 52.48	32.33	2.590	1.421 0368	1492	81 25 09.88	30.77
.541	.413 5460	1566	80 59 24.80	32.30	.591	.421 1859	1491	81 25 40.63	30.74
.542	.413 7025	1564	80 59 57.08	32.27	.592	.421 3349	1489	81 26 11.36	30.71
.543	.413 8589	1563	81 00 29.34	32.24	.593	.421 4837	1488	81 26 42.06	30.68
.544	.414 0151	1561	81 01 01.56	32.21	.594	.421 6324	1486	81 27 12.73	30.65
2.545	1.414 1712	1560	81 01 33.75	32.17	2.595	1.421 7809	1485	81 27 43.37	30.62
.546	.414 3271	1558	81 02 05.91	32.14	.596	.421 9293	1483	81 28 13.98	30.59
.547	.414 4829	1557	81 02 38.03	32.11	.597	.422 0776	1482	81 28 44.55	30.56
.548	.414 6385	1555	81 03 10.13	32.08	.598	.422 2257	1480	81 29 15.10	30.53
.549	.414 7939	1554	81 03 42.19	32.05	.599	.422 3736	1479	81 29 45.62	30.50
2.550	1.414 9492	1552	81 04 14.22	32.02	2.600	1.422 5214	1477	81 30 16.11	30.47
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
2.600	1.422 5214	1477	81 30 16.11	30.47	2.650	1.429 7283	1406	81 55 02.63	29.00
.601	.422 6691	1476	81 30 46.56	30.44	.651	.429 8688	1405	81 55 31.62	28.97
.602	.422 8166	1474	81 31 16.99	30.41	.652	.430 0092	1403	81 56 00.58	28.94
.603	.422 9640	1473	81 31 47.39	30.38	.653	.430 1495	1402	81 56 29.51	28.92
.604	.423 1112	1471	81 32 17.75	30.35	.654	.430 2896	1400	81 56 58.41	28.89
2.605	1.423 2583	1470	81 32 48.09	30.32	2.655	1.430 4296	1399	81 57 27.28	28.86
.606	.423 4052	1469	81 33 18.40	30.29	.656	.430 5694	1398	81 57 56.12	28.83
.607	.423 5520	1467	81 33 48.67	30.26	.657	.430 7091	1396	81 58 24.94	28.80
.608	.423 6986	1466	81 34 18.92	30.23	.658	.430 8487	1395	81 58 53.72	28.77
.609	.423 8451	1464	81 34 49.14	30.20	.659	.430 9881	1394	81 59 22.48	28.74
2.610	1.423 9915	1463	81 35 19.32	30.17	2.660	1.431 1274	1392	81 59 51.21	28.72
.611	.424 1377	1461	81 35 49.48	30.14	.661	.431 2665	1391	82 00 19.91	28.69
.612	.424 2837	1460	81 36 19.61	30.11	.662	.431 4055	1389	82 00 48.58	28.66
.613	.424 4297	1458	81 36 49.71	30.08	.663	.431 5444	1388	82 01 17.23	28.63
.614	.424 5754	1457	81 37 19.77	30.05	.664	.431 6831	1387	82 01 45.84	28.60
2.615	1.424 7211	1456	81 37 49.81	30.02	2.665	1.431 8217	1385	82 02 14.43	28.57
.616	.424 8665	1454	81 38 19.82	29.99	.666	.431 9602	1384	82 02 42.99	28.55
.617	.425 0119	1453	81 38 49.80	29.96	.667	.432 0985	1383	82 03 11.52	28.52
.618	.425 1571	1451	81 39 19.75	29.93	.668	.432 2367	1381	82 03 40.02	28.49
.619	.425 3021	1450	81 39 49.67	29.90	.669	.432 3747	1380	82 04 08.50	28.46
2.620	1.425 4470	1448	81 40 19.56	29.87	2.670	1.432 5127	1378	82 04 36.95	28.43
.621	.425 5918	1447	81 40 49.42	29.85	.671	.432 6504	1377	82 05 05.36	28.40
.622	.425 7364	1446	81 41 19.25	29.82	.672	.432 7881	1376	82 05 33.75	28.38
.623	.425 8809	1444	81 41 49.05	29.79	.673	.432 9256	1374	82 06 02.12	28.35
.624	.426 0252	1443	81 42 18.82	29.76	.674	.433 0629	1373	82 06 30.45	28.32
2.625	1.426 1694	1441	81 42 48.56	29.73	2.675	1.433 2002	1372	82 06 58.76	28.29
.626	.426 3135	1440	81 43 18.28	29.70	.676	.433 3373	1370	82 07 27.03	28.26
.627	.426 4574	1438	81 43 47.96	29.67	.677	.433 4742	1369	82 07 55.28	28.24
.628	.426 6012	1437	81 44 17.61	29.64	.678	.433 6110	1368	82 08 23.51	28.21
.629	.426 7448	1436	81 44 47.24	29.61	.679	.433 7477	1366	82 08 51.70	28.18
2.630	1.426 8883	1434	81 45 16.83	29.58	2.680	1.433 8843	1365	82 09 19.86	28.15
.631	.427 0316	1433	81 45 46.40	29.55	.681	.434 0207	1363	82 09 48.00	28.12
.632	.427 1748	1431	81 46 15.94	29.52	.682	.434 1570	1362	82 10 16.11	28.10
.633	.427 3179	1430	81 46 45.44	29.49	.683	.434 2931	1361	82 10 44.20	28.07
.634	.427 4608	1428	81 47 14.92	29.46	.684	.434 4291	1359	82 11 12.25	28.04
2.635	1.427 6036	1427	81 47 44.37	29.43	2.685	1.434 5650	1358	82 11 40.28	28.01
.636	.427 7462	1426	81 48 13.79	29.41	.686	.434 7008	1357	82 12 08.28	27.99
.637	.427 8887	1424	81 48 43.18	29.38	.687	.434 8364	1355	82 12 36.25	27.96
.638	.428 0310	1423	81 49 12.55	29.35	.688	.434 9719	1354	82 13 04.19	27.93
.639	.428 1732	1421	81 49 41.88	29.32	.689	.435 1072	1353	82 13 32.11	27.90
2.640	1.428 3153	1420	81 50 11.18	29.29	2.690	1.435 2424	1351	82 13 59.99	27.87
.641	.428 4572	1419	81 50 40.46	29.26	.691	.435 3775	1350	82 14 27.86	27.85
.642	.428 5990	1417	81 51 09.70	29.23	.692	.435 5124	1349	82 14 55.69	27.82
.643	.428 7407	1416	81 51 38.92	29.20	.693	.435 6472	1347	82 15 23.49	27.79
.644	.428 8822	1414	81 52 08.11	29.17	.694	.435 7819	1346	82 15 51.27	27.77
2.645	1.429 0236	1413	81 52 37.27	29.14	2.695	1.435 9164	1345	82 16 19.02	27.74
.646	.429 1648	1412	81 53 06.40	29.12	.696	.436 0508	1343	82 16 46.75	27.71
.647	.429 3059	1410	81 53 35.50	29.09	.697	.436 1851	1342	82 17 14.44	27.68
.648	.429 4468	1409	81 54 04.57	29.06	.698	.436 3192	1341	82 17 42.11	27.65
.649	.429 5876	1407	81 54 33.62	29.03	.699	.436 4532	1339	82 18 09.75	27.63
2.650	1.429 7283	1406	81 55 02.63	29.00	2.700	1.436 5871	1338	82 18 37.36	27.60
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
2.700	1.436 5871	1338	82 18 37.36	27.60	2.750	1.443 1144	1273	82 41 03.70	26.26
.701	.436 7209	1337	82 19 04.95	27.57	.751	.443 2416	1272	82 41 29.95	26.24
.702	.436 8545	1335	82 19 32.51	27.54	.752	.443 3688	1271	82 41 56.18	26.21
.703	.436 9879	1334	82 20 00.04	27.52	.753	.443 4958	1270	82 42 22.38	26.19
.704	.437 1213	1333	82 20 27.54	27.49	.754	.443 6227	1268	82 42 48.55	26.16
2.705	1.437 2545	1331	82 20 55.02	27.46	2.755	1.443 7495	1267	82 43 14.70	26.14
.706	.437 3876	1330	82 21 22.47	27.44	.756	.443 8761	1266	82 43 40.82	26.11
.707	.437 5205	1329	82 21 49.89	27.41	.757	.444 0026	1265	82 44 06.92	26.08
.708	.437 6533	1327	82 22 17.29	27.38	.758	.444 1290	1263	82 44 32.99	26.06
.709	.437 7860	1326	82 22 44.66	27.35	.759	.444 2553	1262	82 44 59.03	26.03
2.710	1.437 9186	1325	82 23 12.00	27.33	2.760	1.444 3814	1261	82 45 25.05	26.01
.711	.438 0510	1324	82 23 39.31	27.30	.761	.444 5074	1260	82 45 51.04	25.98
.712	.438 1833	1322	82 24 06.60	27.27	.762	.444 6333	1258	82 46 17.01	25.95
.713	.438 3154	1321	82 24 33.86	27.25	.763	.444 7591	1257	82 46 42.95	25.93
.714	.438 4475	1320	82 25 01.09	27.22	.764	.444 8847	1256	82 47 08.87	25.90
2.715	1.438 5794	1318	82 25 28.29	27.19	2.765	1.445 0102	1255	82 47 34.76	25.88
.716	.438 7111	1317	82 25 55.47	27.17	.766	.445 1356	1253	82 48 00.62	25.85
.717	.438 8428	1316	82 26 22.63	27.14	.767	.445 2609	1252	82 48 26.46	25.83
.718	.438 9743	1314	82 26 49.75	27.11	.768	.445 3860	1251	82 48 52.27	25.80
.719	.439 1057	1313	82 27 16.85	27.08	.769	.445 5111	1250	82 49 18.06	25.77
2.720	1.439 2369	1312	82 27 43.92	27.06	2.770	1.445 6360	1248	82 49 43.82	25.75
.721	.439 3680	1310	82 28 10.96	27.03	.771	.445 7607	1247	82 50 09.56	25.72
.722	.439 4990	1309	82 28 37.98	27.00	.772	.445 8854	1246	82 50 35.27	25.70
.723	.439 6299	1308	82 29 04.97	26.98	.773	.446 0099	1245	82 51 00.95	25.67
.724	.439 7606	1307	82 29 31.94	26.95	.774	.446 1343	1243	82 51 26.61	25.65
2.725	1.439 8912	1305	82 29 58.87	26.92	2.775	1.446 2586	1242	82 51 52.25	25.62
.726	.440 0216	1304	82 30 25.79	26.90	.776	.446 3827	1241	82 52 17.86	25.60
.727	.440 1520	1303	82 30 52.67	26.87	.777	.446 5068	1240	82 52 43.44	25.57
.728	.440 2822	1301	82 31 19.53	26.84	.778	.446 6307	1238	82 53 09.00	25.55
.729	.440 4123	1300	82 31 46.36	26.82	.779	.446 7545	1237	82 53 34.53	25.52
2.730	1.440 5422	1299	82 32 13.16	26.79	2.780	1.446 8781	1236	82 54 00.04	25.49
.731	.440 6720	1298	82 32 39.94	26.76	.781	.447 0017	1235	82 54 25.52	25.47
.732	.440 8017	1296	82 33 06.69	26.74	.782	.447 1251	1234	82 54 50.98	25.44
.733	.440 9313	1295	82 33 33.42	26.71	.783	.447 2484	1232	82 55 16.41	25.42
.734	.441 0607	1294	82 34 00.11	26.68	.784	.447 3716	1231	82 55 41.81	25.39
2.735	1.441 1900	1292	82 34 26.78	26.66	2.785	1.447 4946	1230	82 56 07.19	25.37
.736	.441 3192	1291	82 34 53.43	26.63	.786	.447 6175	1229	82 56 32.55	25.34
.737	.441 4483	1290	82 35 20.05	26.61	.787	.447 7403	1227	82 56 57.88	25.32
.738	.441 5772	1289	82 35 46.64	26.58	.788	.447 8630	1226	82 57 23.19	25.29
.739	.441 7060	1287	82 36 13.21	26.55	.789	.447 9856	1225	82 57 48.47	25.27
2.740	1.441 8347	1286	82 36 39.75	26.53	2.790	1.448 1080	1224	82 58 13.72	25.24
.741	.441 9632	1285	82 37 06.26	26.50	.791	.448 2303	1223	82 58 38.95	25.22
.742	.442 0916	1283	82 37 32.75	26.47	.792	.448 3525	1221	82 59 04.16	25.19
.743	.442 2199	1282	82 37 59.21	26.45	.793	.448 4746	1220	82 59 29.34	25.17
.744	.442 3481	1281	82 38 25.64	26.42	.794	.448 5966	1219	82 59 54.49	25.14
2.745	1.442 4761	1280	82 38 52.05	26.40	2.795	1.448 7184	1218	83 00 19.62	25.12
.746	.442 6040	1278	82 39 18.43	26.37	.796	.448 8401	1217	83 00 44.73	25.09
.747	.442 7318	1277	82 39 44.79	26.34	.797	.448 9617	1215	83 01 09.81	25.07
.748	.442 8594	1276	82 40 11.12	26.32	.798	.449 0832	1214	83 01 34.86	25.04
.749	.442 9870	1275	82 40 37.42	26.29	.799	.449 2045	1213	83 01 59.90	25.02
2.750	1.443 1144	1273	82 41 03.70	26.26	2.800	1.449 3258	1212	83 02 24.90	24.99
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
2.800	1.449 3258	1212	83 02 24.90	24.99	2.850	1.455 2365	1153	83 22 44.07	23.78
.801	.449 4469	1211	83 02 49.88	24.97	.851	.455 3517	1152	83 23 07.84	23.76
.802	.449 5679	1209	83 03 14.84	24.94	.852	.455 4668	1151	83 23 31.58	23.74
.803	.449 6888	1208	83 03 39.77	24.92	.853	.455 5819	1150	83 23 55.31	23.71
.804	.449 8095	1207	93 04 04.68	24.89	.854	.455 6968	1148	83 24 19.01	23.69
2.805	1.449 9301	1206	83 04 29.56	24.87	2.855	1.455 8115	1147	83 24 42.69	23.67
.806	.450 0507	1205	83 04 54.42	24.85	.856	.455 9262	1146	83 25 06.34	23.64
.807	.450 1710	1203	83 05 19.25	24.82	.857	.456 0408	1145	83 25 29.97	23.62
.808	.450 2913	1202	83 05 44.06	24.80	.858	.456 1552	1144	83 25 53.58	23.59
.809	.450 4115	1201	83 06 08.84	24.77	.859	.456 2696	1143	83 26 17.16	23.57
2.810	1.450 5315	1200	83 06 33.60	24.75	2.860	1.456 3838	1142	83 26 40.72	23.55
.811	.450 6514	1199	83 06 58.33	24.72	.861	.456 4979	1140	83 27 04.25	23.52
.812	.450 7712	1198	83 07 23.04	24.70	.862	.456 6119	1139	83 27 27.77	23.50
.813	.450 8909	1196	83 07 47.73	24.67	.863	.456 7258	1138	83 27 51.26	23.48
.814	.451 0105	1195	83 08 12.39	24.65	.864	.456 8395	1137	83 28 14.72	23.45
2.815	1.451 1299	1194	83 08 37.03	24.62	2.865	1.456 9532	1136	83 28 38.16	23.43
.816	.451 2492	1193	83 09 01.64	24.60	.866	.457 0667	1135	83 29 01.58	23.41
.817	.451 3684	1191	83 09 26.23	24.58	.867	.457 1801	1134	83 29 24.98	23.38
.818	.451 4875	1190	83 09 50.79	24.55	.868	.457 2935	1133	83 29 48.35	23.36
.819	.451 6065	1189	83 10 15.33	24.53	.869	.457 4067	1131	83 30 11.70	23.34
2.820	1.451 7253	1188	83 10 39.84	24.50	2.870	1.457 5198	1130	83 30 35.03	23.32
.821	.451 8441	1187	83 11 04.33	24.48	.871	.457 6327	1129	83 30 58.33	23.29
.822	.451 9627	1186	83 11 28.80	24.45	.872	.457 7456	1128	83 31 21.61	23.27
.823	.452 0812	1184	83 11 53.24	24.43	.873	.457 8584	1127	83 31 44.87	23.25
.824	.452 1995	1183	83 12 17.66	24.41	.874	.457 9710	1126	83 32 08.11	23.22
2.825	1.452 3178	1182	83 12 42.05	24.38	2.875	1.458 0835	1125	83 32 31.32	23.20
.826	.452 4359	1181	83 13 06.42	24.36	.876	.458 1959	1124	83 32 54.50	23.18
.827	.452 5540	1180	83 13 30.76	24.33	.877	.458 3083	1123	83 33 17.67	23.15
.828	.452 6719	1178	83 13 55.08	24.31	.878	.458 4204	1121	83 33 40.81	23.13
.829	.452 7897	1177	83 14 19.38	24.28	.879	.458 5325	1120	83 34 03.93	23.11
2.830	1.452 9073	1176	83 14 43.65	24.26	2.880	1.458 6445	1119	83 34 27.03	23.08
.831	.453 0249	1175	83 15 07.90	24.24	.881	.458 7564	1118	83 34 50.10	23.06
.832	.453 1423	1174	83 15 32.12	24.21	.882	.458 8681	1117	83 35 13.15	23.04
.833	.453 2597	1173	83 15 56.32	24.19	.883	.458 9798	1116	83 35 36.18	23.02
.834	.453 3769	1171	83 16 20.50	24.16	.884	.459 0913	1115	83 35 59.18	22.99
2.835	1.453 4940	1170	83 16 44.65	24.14	2.885	1.459 2027	1114	83 36 22.16	22.97
.836	.453 6109	1169	83 17 08.78	24.12	.886	.459 3140	1113	83 36 45.12	22.95
.837	.453 7278	1168	83 17 32.88	24.09	.887	.459 4252	1111	83 37 08.06	22.92
.838	.453 8445	1167	83 17 56.96	24.07	.888	.459 5363	1110	83 37 30.97	22.90
.839	.453 9612	1166	83 18 21.02	24.04	.889	.459 6473	1109	83 37 53.86	22.88
2.840	1.454 0777	1165	83 18 45.05	24.02	2.890	1.459 7581	1108	83 38 16.73	22.86
.841	.454 1941	1163	83 19 09.06	24.00	.891	.459 8689	1107	83 38 39.57	22.83
.842	.454 3104	1162	83 19 33.04	23.97	.892	.459 9795	1106	83 39 02.40	22.81
.843	.454 4265	1161	83 19 57.01	23.95	.893	.460 0901	1105	83 39 25.19	22.79
.844	.454 5426	1160	83 20 20.94	23.93	.894	.460 2005	1104	83 39 47.97	22.77
2.845	1.454 6585	1159	83 20 44.86	23.90	2.895	1.460 3108	1103	83 40 10.73	22.74
.846	.454 7743	1158	83 21 08.74	23.88	.896	.460 4210	1101	83 40 33.46	22.72
.847	.454 8900	1156	83 21 32.61	23.85	.897	.460 5311	1100	83 40 56.17	22.70
.848	.455 0056	1155	83 21 56.45	23.83	.898	.460 6411	1099	83 41 18.85	22.68
.849	.455 1211	1154	83 22 20.27	23.81	.899	.460 7510	1098	83 41 41.52	22.65
2.850	1.455 2365	1153	83 22 44.07	23.78	2.900	1.460 8607	1097	83 42 04.16	22.63
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
2.900	1.460 8607	1097	83 42 04.16	22.63	2.950	1.466 2123	1044	84 00 28.00	21.53
.901	.460 9704	1096	83 42 26.78	22.61	.951	.466 3167	1043	84 00 49.53	21.51
.902	.461 0800	1095	83 42 49.37	22.59	.952	.466 4209	1042	84 01 11.03	21.49
.903	.461 1894	1094	83 43 11.95	22.56	.953	.466 5251	1041	84 01 32.51	21.47
.904	.461 2987	1093	83 43 34.50	22.54	.954	.466 6291	1040	84 01 53.97	21.45
2.905	1.461 4080	1092	83 43 57.03	22.52	2.955	1.466 7330	1039	84 02 15.40	21.43
.906	.461 5171	1091	83 44 19.54	22.50	.956	.466 8368	1038	84 02 36.82	21.40
.907	.461 6261	1090	83 44 42.02	22.47	.957	.466 9406	1037	84 02 58.21	21.38
.908	.461 7350	1088	83 45 04.48	22.45	.958	.467 0442	1036	84 03 19.58	21.36
.909	.461 8438	1087	83 45 26.92	22.43	.959	.467 1477	1035	84 03 40.93	21.34
2.910	1.461 9525	1086	83 45 49.34	22.41	2.960	1.467 2511	1034	84 04 02.27	21.32
.911	.462 0610	1085	83 46 11.73	22.38	.961	.467 3544	1033	84 04 23.57	21.30
.912	.462 1695	1084	83 46 34.11	22.36	.962	.467 4576	1032	84 04 44.86	21.28
.913	.462 2779	1083	83 46 56.46	22.34	.963	.467 5607	1031	84 05 06.13	21.26
.914	.462 3861	1082	83 47 18.79	22.32	.964	.467 6637	1029	84 05 27.37	21.23
2.915	1.462 4942	1081	83 47 41.09	22.30	2.965	1.467 7666	1028	84 05 48.60	21.21
.916	.462 6023	1080	83 48 03.38	22.27	.966	.467 8694	1027	84 06 09.80	21.19
.917	.462 7102	1079	83 48 25.64	22.25	.967	.467 9721	1026	84 06 30.98	21.17
.918	.462 8180	1078	83 48 47.88	22.23	.968	.468 0747	1025	84 06 52.14	21.15
.919	.462 9257	1077	83 49 10.10	22.21	.969	.468 1772	1024	84 07 13.29	21.13
2.920	1.463 0334	1076	83 49 32.29	22.18	2.970	1.468 2796	1023	84 07 34.40	21.11
.921	.463 1409	1074	83 49 54.47	22.16	.971	.468 3819	1022	84 07 55.50	21.09
.922	.463 2483	1073	83 50 16.62	22.14	.972	.468 4841	1021	84 08 16.58	21.07
.923	.463 3555	1072	83 50 38.75	22.12	.973	.468 5861	1020	84 08 37.64	21.05
.924	.463 4627	1071	83 51 00.86	22.10	.974	.468 6881	1019	84 08 58.67	21.02
2.925	1.463 5698	1070	83 51 22.94	22.07	2.975	1.468 7900	1018	84 09 19.69	21.00
.926	.463 6768	1069	83 51 45.00	22.05	.976	.468 8918	1017	84 09 40.68	20.98
.927	.463 7836	1068	83 52 07.05	22.03	.977	.468 9935	1016	84 10 01.65	20.96
.928	.463 8904	1067	83 52 29.07	22.01	.978	.469 0950	1015	84 10 22.60	20.94
.929	.463 9970	1066	83 52 51.06	21.99	.979	.469 1965	1014	84 10 43.53	20.92
2.930	1.464 1036	1065	83 53 13.04	21.97	2.980	1.469 2979	1013	84 11 04.44	20.90
.931	.464 2100	1064	83 53 34.99	21.94	.981	.469 3992	1012	84 11 25.33	20.88
.932	.464 3163	1063	83 53 56.93	21.92	.982	.469 5003	1011	84 11 46.20	20.86
.933	.464 4226	1062	83 54 18.84	21.90	.983	.469 6014	1010	84 12 07.05	20.84
.934	.464 5287	1061	83 54 40.73	21.88	.984	.469 7024	1009	84 12 27.88	20.82
2.935	1.464 6347	1060	83 55 02.59	21.86	2.985	1.469 8033	1008	84 12 48.68	20.80
.936	.464 7406	1059	83 55 24.44	21.83	.986	.469 9040	1007	84 13 09.47	20.78
.937	.464 8464	1058	83 55 46.26	21.81	.987	.470 0047	1006	84 13 30.23	20.75
.938	.464 9521	1056	83 56 08.07	21.79	.988	.470 1053	1005	84 13 50.98	20.73
.939	.465 0577	1055	83 56 29.85	21.77	.989	.470 2057	1004	84 14 11.70	20.71
2.940	1.465 1632	1054	83 56 51.60	21.75	2.990	1.470 3061	1003	84 14 32.40	20.69
.941	.465 2686	1053	83 57 13.34	21.73	.991	.470 4064	1002	84 14 53.09	20.67
.942	.465 3739	1052	83 57 35.06	21.70	.992	.470 5065	1001	84 15 13.75	20.65
.943	.465 4790	1051	83 57 56.75	21.68	.993	.470 6066	1000	84 15 34.39	20.63
.944	.465 5841	1050	83 58 18.42	21.66	.994	.470 7066	999	84 15 55.01	20.61
2.945	1.465 6891	1049	83 58 40.07	21.64	2.995	1.470 8065	998	84 16 15.61	20.59
.946	.465 7939	1048	83 59 01.70	21.62	.996	.470 9062	997	84 16 36.19	20.57
.947	.465 8987	1047	83 59 23.31	21.60	.997	.471 0059	996	84 16 56.75	20.55
.948	.466 0033	1046	83 59 44.90	21.58	.998	.471 1055	995	84 17 17.29	20.53
.949	.466 1079	1045	84 00 06.46	21.55	.999	.471 2050	994	84 17 37.81	20.51
2.950	1.466 2123	1044	84 00 28.00	21.53	3.000	1.471 3043	993	84 17 58.30	20.49
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	$\omega F_0'$	gd u	$\omega F_0'$	u	gd u	$\omega F_0'$	gd u	$\omega F_0'$
			° ′ ″	″				° ′ ″	″
3.00	1.471 3043	9933	84 17 58.30	204.88	3.50	1.510 4199	6034	86 32 26.47	124.46
.01	.472 2927	9835	84 21 22.17	202.85	.51	.511 0203	5974	86 34 30.31	123.22
.02	.473 2713	9737	84 24 44.01	200.84	.52	.511 6147	5915	86 36 32.92	122.00
.03	.474 2401	9641	84 28 03.86	198.85	.53	.512 2033	5856	86 38 34.31	120.79
.04	.475 1994	9545	84 31 21.72	196.88	.54	.512 7859	5798	86 40 34.50	119.59
3.05	1.476 1492	9451	84 34 37.63	194.93	3.55	1.513 3628	5740	86 42 33.49	118.40
.06	.477 0896	9357	84 37 51.59	193.00	.56	.513 9340	5683	86 44 31.30	117.22
.07	.478 0206	9264	84 41 03.64	191.09	.57	.514 4995	5627	86 46 27.94	116.06
.08	.478 9425	9173	84 44 13.78	189.20	.58	.515 0594	5571	86 48 23.43	114.91
.09	.479 8551	9082	84 47 22.04	187.32	.59	.515 6137	5516	86 50 17.76	113.66
3.10	1.480 7588	8992	84 50 28.43	185.47	3.60	1.516 1625	5461	86 52 10.96	112.63
.11	.481 6535	8903	84 53 32.97	183.63	.61	.516 7058	5406	86 54 03.03	111.52
.12	.482 5393	8814	84 56 35.69	181.81	.62	.517 2438	5353	86 55 53.99	110.41
.13	.483 4164	8727	84 59 36.59	180.00	.63	.517 7764	5300	86 57 43.85	109.31
.14	.484 2847	8640	85 02 35.70	178.22	.64	.518 3037	5247	86 59 32.62	108.22
3.15	1.485 1445	8555	85 05 33.04	176.45	3.65	1.518 8258	5195	87 01 20.30	107.15
.16	.485 9957	8470	85 08 28.61	174.70	.66	.519 3427	5143	87 03 06.92	106.08
.17	.486 8385	8386	85 11 22.45	172.97	.67	.519 8544	5092	87 04 52.47	105.03
.18	.487 6729	8303	85 14 14.56	171.26	.68	.520 3611	5041	87 06 36.98	103.99
.19	.488 4991	8221	85 17 04.97	169.56	.69	.520 8627	4991	87 08 20.45	102.95
3.20	1.489 3170	8139	85 19 53.69	167.88	3.70	1.521 3593	4942	87 10 02.89	101.93
.21	.490 1269	8058	85 22 40.73	166.21	.71	.521 8511	4893	87 11 44.31	100.92
.22	.490 9287	7978	85 25 26.12	164.56	.72	.522 3379	4844	87 13 24.73	99.91
.23	.491 7226	7899	85 28 09.86	162.93	.73	.522 8199	4796	87 15 04.14	98.92
.24	.492 5085	7821	85 30 51.99	161.32	.74	.523 2971	4748	87 16 42.57	97.94
3.25	1.493 2867	7743	85 33 32.50	159.71	3.75	1.523 7695	4701	87 18 20.02	96.96
.26	.494 0572	7667	85 36 11.42	158.13	.76	.524 2373	4654	87 19 56.50	96.00
.27	.494 8200	7590	85 38 48.77	156.56	.77	.524 7004	4608	87 21 32.03	95.05
.28	.495 5753	7515	85 41 24.55	155.01	.78	.525 1589	4562	87 23 06.60	94.10
.29	.496 3231	7441	85 43 58.79	153.47	.79	.525 6128	4517	87 24 40.23	93.17
3.30	1.497 0634	7367	85 46 31.50	151.95	3.80	1.526 0622	4472	87 26 12.93	92.24
.31	.497 7964	7294	85 49 02.69	150.44	.81	.526 5072	4428	87 27 44.71	91.32
.32	.498 5221	7221	85 51 32.38	148.95	.82	.526 9478	4384	87 29 15.58	90.42
.33	.499 2407	7150	85 54 00.59	147.47	.83	.527 3839	4340	87 30 45.55	89.52
.34	.499 9521	7079	85 56 27.32	146.00	.84	.527 8157	4297	87 32 14.62	88.63
3.35	1.500 6564	7008	85 58 52.60	144.56	3.85	1.528 2433	4254	87 33 42.80	87.75
.36	.501 3537	6939	86 01 16.44	143.12	.86	.528 6666	4212	87 35 10.11	86.87
.37	.502 0441	6870	86 03 38.84	141.70	.87	.529 0856	4170	87 36 36.55	86.01
.38	.502 7277	6802	86 05 59.84	140.29	.88	.529 5005	4128	87 38 02.13	85.15
.39	.503 4045	6734	86 08 19.44	138.90	.89	.529 9113	4087	87 39 26.86	84.31
3.40	1.504 0746	6667	86 10 37.65	137.52	3.90	1.530 3180	4047	87 40 50.75	83.47
.41	.504 7380	6601	86 12 54.48	136.16	.91	.530 7207	4007	87 42 13.81	82.64
.42	.505 3948	6536	86 15 09.96	134.80	.92	.531 1193	3967	87 43 36.03	81.82
.43	.506 0451	6471	86 17 24.10	133.47	.93	.531 5140	3927	87 44 57.45	81.00
.44	.506 6889	6406	86 19 36.90	132.14	.94	.531 9048	3888	87 46 18.05	80.20
3.45	1.507 3264	6343	86 21 48.38	130.83	3.95	1.532 2917	3850	87 47 37.85	79.40
.46	.507 9575	6280	86 23 58.56	129.53	.96	.532 6747	3811	87 48 56.85	78.61
.47	.508 5823	6217	86 26 07.44	128.24	.97	.533 0539	3773	87 50 15.07	77.83
.48	.509 2010	6156	86 28 15.05	126.97	.98	.533 4294	3736	87 51 32.52	77.06
.49	.509 8135	6095	86 30 21.39	125.71	.99	.533 8011	3699	87 52 49.19	76.29
3.50	1.510 4199	6034	86 32 26.47	124.46	4.00	1.534 1691	3662	87 54 05.10	75.53
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
4.00	1.534 1691	3662	87 54 05.10	75.53	4.50	1.548 5792	2222	88 43 37.40	45.82
.01	.534 5335	3626	87 55 20.26	74.78	.51	.548 8003	2199	88 44 22.99	45.37
.02	.534 8943	3590	87 56 34.67	74.04	.52	.549 0191	2178	88 45 08.13	44.92
.03	.535 2514	3554	87 57 48.33	73.30	.53	.549 2358	2156	88 45 52.82	44.47
.04	.535 6050	3518	87 59 01.27	72.57	.54	.549 4503	2134	88 46 37.07	44.03
4.05	1.535 9551	3483	88 00 13.48	71.85	4.55	1.549 6627	2113	88 47 20.88	43.59
.06	.536 3017	3449	88 01 24.97	71.14	.56	.549 8730	2092	88 48 04.25	43.15
.07	.536 6449	3415	88 02 35.76	70.43	.57	.550 0811	2071	88 48 47.19	42.73
.08	.536 9846	3381	88 03 45.83	69.73	.58	.550 2873	2051	88 49 29.70	42.30
.09	.537 3210	3347	88 04 55.22	69.03	.59	.550 4913	2030	88 50 11.79	41.88
4.10	1.537 6540	3314	88 06 03.91	68.35	4.60	1.550 6933	2010	88 50 53.46	41.46
.11	.537 9837	3281	88 07 11.91	67.67	.61	.550 8933	1990	88 51 34.72	41.05
.12	.538 3102	3248	88 08 19.25	67.00	.62	.551 0914	1970	88 52 15.56	40.64
.13	.538 6333	3216	88 09 25.91	66.33	.63	.551 2874	1951	88 52 56.00	40.24
.14	.538 9533	3184	88 10 31.91	65.67	.64	.551 4815	1931	88 53 36.04	39.84
4.15	1.539 2701	3152	88 11 37.25	65.02	4.65	1.551 6737	1912	88 54 15.68	39.44
.16	.539 5837	3121	88 12 41.94	64.37	.66	.551 8640	1893	88 54 54.92	39.05
.17	.539 8943	3090	88 13 45.99	63.73	.67	.552 0523	1874	88 55 33.77	38.66
.18	.540 2017	3059	88 14 49.40	63.10	.68	.552 2388	1856	88 56 12.24	38.28
.19	.540 5061	3029	88 15 52.19	62.47	.69	.552 4235	1837	88 56 50.33	37.89
4.20	1.540 8074	2998	88 16 54.34	61.85	4.70	1.552 6063	1819	88 57 28.03	37.52
.21	.541 1058	2969	88 17 55.88	61.23	.71	.552 7873	1801	88 58 05.36	37.14
.22	.541 4012	2939	88 18 56.81	60.62	.72	.552 9664	1783	88 58 42.32	36.77
.23	.541 6936	2910	88 19 57.13	60.02	.73	.553 1438	1765	88 59 18.91	36.41
.24	.541 9831	2881	88 20 56.85	59.42	.74	.553 3195	1748	88 59 55.14	36.05
4.25	1.542 2698	2852	88 21 55.98	58.83	4.75	1.553 4934	1730	89 00 31.01	35.69
.26	.542 5536	2824	88 22 54.52	58.25	.76	.553 6655	1713	89 01 06.52	35.33
.27	.542 8346	2796	88 23 52.48	57.67	.77	.553 8360	1696	89 01 41.68	34.98
.28	.543 1128	2768	88 24 49.86	57.09	.78	.554 0047	1679	89 02 16.48	34.63
.29	.543 3882	2741	88 25 46.67	56.53	.79	.554 1718	1662	89 02 50.94	34.29
4.30	1.543 6609	2713	88 26 42.91	55.96	4.80	1.554 3372	1646	89 03 25.06	33.95
.31	.543 9308	2686	88 27 38.60	55.41	.81	.554 5010	1630	89 03 58.84	33.61
.32	.544 1981	2660	80 28 33.73	54.86	.82	.554 6631	1613	89 04 32.28	33.28
.33	.544 4628	2633	88 29 28.31	54.31	.83	.554 8236	1597	89 05 05.39	32.94
.34	.544 7247	2607	88 30 22.35	53.77	.84	.554 9825	1581	89 05 38.17	32.62
4.35	1.544 9841	2581	88 31 15.85	53.24	4.85	1.555 1399	1566	89 06 10.63	32.29
.36	.545 2409	2555	88 32 08.82	52.71	.86	.555 2957	1550	89 06 42.76	31.97
.37	.545 4952	2530	88 33 01.27	52.18	.87	.555 4499	1535	89 07 14.57	31.65
.38	.545 7469	2505	88 33 53.19	51.66	.88	.555 6026	1519	89 07 46.07	31.34
.39	.545 9961	2480	88 34 44.59	51.15	.89	.555 7538	1504	89 08 17.25	31.03
4.40	1.546 2429	2455	88 35 35.49	50.64	4.90	1.555 9034	1489	89 08 48.12	30.72
.41	.546 4872	2431	88 36 25.88	50.14	.91	.556 0516	1474	89 09 18.69	30.41
.42	.546 7290	2407	88 37 15.76	49.64	.92	.556 1983	1460	89 09 48.95	30.11
.43	.546 9685	2383	88 38 05.15	49.14	.93	.556 3436	1445	89 10 18.91	29.81
.44	.547 2055	2359	88 38 54.05	48.65	.94	.556 4874	1431	89 10 48.57	29.51
4.45	1.547 4403	2335	88 39 42.46	48.17	4.95	1.556 6297	1417	89 11 17.93	29.22
.46	.547 6726	2312	88 40 30.40	47.69	.96	.556 7707	1403	89 11 47.01	28.93
.47	.547 9027	2289	88 41 17.85	47.22	.97	.556 9103	1389	89 12 15.79	28.64
.48	.548 1305	2266	88 42 04.83	46.75	.98	.557 0484	1375	89 12 44.29	28.36
.49	.548 3560	2244	88 42 51.35	46.28	.99	.557 1852	1361	89 13 12.51	28.07
4.50	1.548 5792	2222	88 43 37.40	45.82	5.00	1.557 3206	1348	89 13 40.44	27.79
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

u	gd u	ωF₀′	gd u	ωF₀′	u	gd u	ωF₀′	gd u	ωF₀′
			° ′ ″	″				° ′ ″	″
5.00	1.557 3206	1348	89 13 40.44	27.79	5.50	1.562 6228	817	89 31 54.10	16.86
.01	.557 4547	1334	89 14 08.10	27.52	.51	.562 7042	809	89 32 10.87	16.69
.02	.557 5875	1321	89 14 35.48	27.24	.52	.562 7847	801	89 32 27.48	16.53
.03	.557 7189	1308	89 15 02.58	26.97	.53	.562 8644	793	89 32 43.92	16.36
.04	.557 8490	1295	89 15 29.42	26.71	.54	.562 9433	785	89 33 00.20	16.20
5.05	1.557 9778	1282	89 15 56.00	26.44	5.55	1.563 0215	777	89 33 16.32	16.04
.06	.558 1054	1269	89 16 22.30	26.18	.56	.563 0988	770	89 33 32.27	15.88
.07	.558 2317	1256	89 16 48.35	25.92	.57	.563 1754	762	89 33 48.07	15.72
.08	.558 3567	1244	89 17 14.14	25.66	.58	.563 2512	755	89 34 03.71	15.56
.09	.558 4804	1232	89 17 39.67	25.40	.59	.563 3263	747	89 34 19.20	15.41
5.10	1.558 6030	1219	89 18 04.94	25.15	5.60	1.563 4006	740	89 34 34.53	15.25
.11	.558 7243	1207	89 18 29.97	24.90	.61	.563 4742	732	89 34 49.71	15.10
.12	.558 8444	1195	89 18 54.74	24.65	.62	.563 5471	725	89 35 04.73	14.95
.13	.558 9633	1183	89 19 19.27	24.41	.63	.563 6192	718	89 35 19.61	14.80
.14	.559 0811	1172	89 19 43.56	24.16	.64	.563 6906	711	89 35 34.34	14.66
5.15	1.559 1976	1160	89 20 07.60	23.92	5.65	1.563 7613	703	89 35 48.93	14.51
.16	.559 3131	1148	89 20 31.40	23.69	.66	.563 8313	697	89 36 03.36	14.37
.17	.559 4273	1137	89 20 54.97	23.45	.67	.563 9006	690	89 36 17.66	14.22
.18	.559 5404	1126	89 21 18.31	23.22	.68	.563 9692	683	89 36 31.81	14.08
.19	.559 6524	1114	89 21 41.41	22.99	.69	.564 0372	676	89 36 45.82	13.94
5.20	1.559 7633	1103	89 22 04.28	22.76	5.70	1.564 1044	669	89 36 59.70	13.80
.21	.559 8731	1092	89 22 26.92	22.53	.71	.564 1710	663	89 37 13.43	13.67
.22	.559 9818	1081	89 22 49.34	22.31	.72	.564 2369	656	89 37 27.03	13.53
.23	.560 0894	1071	89 23 11.53	22.08	.73	.564 3022	649	89 37 40.49	13.40
.24	.560 1959	1060	89 23 33.51	21.86	.74	.564 3668	643	89 37 53.82	13.26
5.25	1.560 3014	1049	89 23 55.26	21.65	5.75	1.564 4308	637	89 38 07.01	13.13
.26	.560 4058	1039	89 24 16.80	21.43	.76	.564 4941	630	89 38 20.08	13.00
.27	.560 5092	1029	89 24 38.13	21.22	.77	.564 5568	624	89 38 33.01	12.87
.28	.560 6116	1018	89 24 59.24	21.01	.78	.564 6189	618	89 38 45.82	12.74
.29	.560 7129	1008	89 25 20.14	20.80	.79	.564 6804	612	89 38 58.50	12.61
5.30	1.560 8132	998	89 25 40.84	20.59	5.80	1.564 7412	606	89 39 11.05	12.49
.31	.560 9126	988	89 26 01.33	20.39	.81	.564 8015	599	89 39 23.48	12.37
.32	.561 0109	979	89 26 21.61	20.18	.82	.564 8611	594	89 39 35.78	12.24
.33	.561 1083	969	89 26 41.69	19.98	.83	.564 9202	588	89 39 47.96	12.12
.34	.561 2047	959	89 27 01.58	19.78	.84	.564 9787	582	89 40 00.02	12.00
5.35	1.561 3001	950	89 27 21.26	19.59	5.85	1.565 0365	576	89 40 11.96	11.88
.36	.561 3946	940	89 27 40.75	19.39	.86	.565 0939	570	89 40 23.78	11.76
.37	.561 4881	931	89 28 00.05	19.20	.87	.565 1506	565	89 40 35.48	11.65
.38	.561 5807	922	89 28 19.15	19.01	.88	.565 2068	559	89 40 47.07	11.53
.39	.561 6724	912	89 28 38.06	18.82	.89	.565 2624	553	89 40 58.54	11.41
5.40	1.561 7632	903	89 28 56.79	18.63	5.90	1.565 3175	548	89 41 09.90	11.30
.41	.561 8531	894	89 29 15.33	18.45	.91	.565 3720	542	99 41 21.15	11.19
.42	.561 9421	885	89 29 33.68	18.26	.92	.565 4259	537	89 41 32.28	11.08
.43	.562 0302	877	89 29 51.85	18.08	.93	.565 4794	532	89 41 43.30	10.97
.44	.562 1174	868	89 30 09.85	17.90	.94	.565 5323	526	89 41 54.21	10.86
5.45	1.562 2038	859	89 30 27.66	17.72	5.95	1.565 5847	521	89 42 05.02	10.75
.46	.562 2893	851	89 30 45.29	17.55	.96	.565 6365	516	89 42 15.71	10.64
.47	.562 3739	842	89 31 02.75	17.37	.97	.565 6879	511	89 42 26.30	10.54
.48	.562 4577	834	89 31 20.04	17.20	.98	.565 7387	506	89 42 36.79	10.43
.49	.562 5407	826	89 31 37.15	17.03	.99	.565 7890	501	89 42 47.17	10.33
5.50	1.562 6228	817	89 31 54.10	16.86	6.00	1.565 8388	496	89 42 57.44	10.23
u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u	u	$2\tan^{-1}(e^u)-\frac{\pi}{2}$	ω sech u	$2\tan^{-1}(e^u)-90°$	ω sech u

TABLE VII

THE ANTI-GUDERMANNIAN

m expressed in minutes in terms of the Gudermannian,

gd u expressed in degrees and minutes.

1 minute = 0.000 2908 8821 radians,

$$0.000\ 2908\ 8821\ \mathrm{m} = \log_e \tan\left(\frac{1}{4}\pi + \frac{1}{2}\,\mathrm{gd}\ u\right) = u \text{ radians.}$$

In this table the second decimal place is sometimes erroneous by a unit.

gd u	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	gd u
0′	0′.00	60.00	120.02	180.08	240.19	300.38	360.66	421.05	481.57	542.23	603.07	0′
1	1.00	61.00	121.02	181.08	241.20	301.38	361.66	422.06	482.58	543.25	604.08	1
2	2.00	62.00	122.03	182.08	242.20	302.39	362.67	423.06	483.59	544.26	605.10	2
3	3.00	63.00	123.03	183.09	243.20	303.39	363.67	424.07	484.60	545.27	606.12	3
4	4.00	64.00	124.03	184.09	244.20	304.40	364.68	425.08	485.61	546.28	607.13	4
5	5.00	65.00	125.03	185.09	245.21	305.40	365.69	426.09	486.62	547.30	608.15	5
6	6.00	66.00	126.03	186.09	246.21	306.40	366.69	427.09	487.63	548.31	609.16	6
7	7.00	67.00	127.03	187.09	247.21	307.41	367.70	428.10	488.64	549.32	610.18	7
8	8.00	68.00	128.03	188.09	248.21	308.41	368.70	429.11	489.65	550.34	611.19	8
9	9.00	69.00	129.03	189.09	249.22	309.42	369.71	430.12	490.66	551.35	612.21	9
10	10.00	70.00	130.03	190.10	250.22	310.42	370.72	431.13	491.67	552.36	613.23	10
11	11.00	71.00	131.03	191.10	251.22	311.42	371.72	432.13	492.68	553.37	614.24	11
12	12.00	72.00	132.03	192.10	252.23	312.43	372.73	433.14	493.69	554.39	615.26	12
13	13.00	73.00	133.03	193.10	253.23	313.43	373.74	434.15	494.70	555.40	616.27	13
14	14.00	74.01	134.03	194.10	254.23	314.44	374.74	435.16	495.71	556.41	617.29	14
15	15.00	75.01	135.03	195.10	255.23	315.44	375.75	436.17	496.72	557.43	618.31	15
16	16.00	76.01	136.03	196.11	256.24	316.45	376.75	437.17	497.73	558.44	619.32	16
17	17.00	77.01	137.04	197.11	257.24	317.45	377.76	438.18	498.74	559.45	620.34	17
18	18.00	78.01	138.04	198.11	258.24	318.45	378.76	439.19	499.75	560.47	621.36	18
19	19.00	79.01	139.04	199.11	259.25	319.46	379.77	440.20	500.76	561.48	622.37	19
20	20.00	80.01	140.04	200.11	260.25	320.46	380.78	441.21	501.77	562.49	623.39	20
21	21.00	81.01	141.04	201.11	261.25	321.47	381.78	442.21	502.78	563.51	624.40	21
22	22.00	82.01	142.04	202.12	262.25	322.47	382.79	443.22	503.79	564.52	625.42	22
23	23.00	83.01	143.04	203.12	263.26	323.48	383.79	444.23	504.80	565.53	626.44	23
24	24.00	84.01	144.04	204.12	264.26	324.48	384.80	445.24	505.81	566.55	627.45	24
25	25.00	85.01	145.04	205.12	265.26	325.48	385.81	446.25	506.83	567.56	628.47	25
26	26.00	86.01	146.04	206.12	266.27	326.49	386.81	447.26	507.84	568.57	629.49	26
27	27.00	87.01	147.04	207.13	267.27	327.49	387.82	448.26	508.85	569.59	630.50	27
28	28.00	88.01	148.05	208.13	268.27	328.50	388.83	449.27	509.86	570.60	631.52	28
29	29.00	89.01	149.05	209.13	269.27	329.50	389.83	450.28	510.87	571.62	632.54	29
30	30.00	90.01	150.05	210.13	270.28	330.51	390.84	451.29	511.88	572.63	633.56	30
31	31.00	91.01	151.05	211.13	271.28	331.51	391.85	452.30	512.89	573.64	634.57	31
32	32.00	92.01	152.05	212.13	272.28	332.52	392.85	453.31	513.90	574.66	635.59	32
33	33.00	93.01	153.05	213.14	273.29	333.52	393.86	454.32	514.91	575.67	636.61	33
34	34.00	94.01	154.05	214.14	274.29	334.53	394.86	455.33	515.93	576.69	637.62	34
35	35.00	95.01	155.05	215.14	275.29	335.53	395.87	456.33	516.94	577.70	638.64	35
36	36.00	96.01	156.05	216.14	276.30	336.54	396.88	457.34	517.95	578.71	639.66	36
37	37.00	97.01	157.05	217.14	277.30	337.54	397.88	458.35	518.96	579.73	640.68	37
38	38.00	98.01	158.06	218.15	278.30	338.55	398.89	459.36	519.97	580.74	641.69	38
39	39.00	99.01	159.06	219.15	279.31	339.55	399.90	460.37	520.98	581.76	642.71	39
40	40.00	100.01	160.06	220.15	280.31	340.56	400.91	461.38	521.99	582.77	643.73	40
41	41.00	101.01	161.06	221.15	281.31	341.56	401.91	462.39	523.01	583.79	644.75	41
42	42.00	102.01	162.06	222.15	282.32	342.57	402.92	463.40	524.02	584.80	645.76	42
43	43.00	103.02	163.06	223.16	283.32	343.57	403.93	464.41	525.03	585.81	646.78	43
44	44.00	104.02	164.06	224.16	284.32	344.58	404.93	465.41	526.04	586.83	647.80	44
45	45.00	105.02	165.06	225.16	285.33	345.58	405.94	466.42	527.05	587.84	648.82	45
46	46.00	106.02	166.06	226.16	286.33	346.59	406.95	467.43	528.06	588.86	649.84	46
47	47.00	107.02	167.07	227.16	287.33	347.59	407.95	468.44	529.08	589.87	650.85	47
48	48.00	108.02	168.07	228.17	288.34	348.60	408.96	469.45	530.09	590.89	651.87	48
49	49.00	109.02	169.07	229.17	289.34	349.60	409.97	470.46	531.10	591.90	652.89	49
50	50.00	110.02	170.07	230.17	290.34	350.61	410.97	471.47	532.11	592.92	653.91	50
51	51.00	111.02	171.07	231.17	291.35	351.61	411.98	472.48	533.12	593.93	654.93	51
52	52.00	112.02	172.07	232.18	292.35	352.62	412.99	473.49	534.14	594.95	655.94	52
53	53.00	113.02	173.07	233.18	293.35	353.62	414.00	474.50	535.15	595.96	656.96	53
54	54.00	114.02	174.07	234.18	294.36	354.63	415.00	475.51	536.16	596.98	657.98	54
55	55.00	115.02	175.07	235.18	295.36	355.63	416.01	476.52	537.17	597.99	659.00	55
56	56.00	116.02	176.08	236.18	296.37	356.64	417.02	477.53	538.18	599.01	660.02	56
57	57.00	117.02	177.08	237.19	297.37	357.64	418.03	478.54	539.20	600.02	661.04	57
58	58.00	118.02	178.08	238.19	298.37	358.65	419.03	479.55	540.21	601.04	662.05	58
59	59.00	119.02	179.08	239.19	299.38	359.65	420.04	480.56	541.22	602.05	663.07	59
60	60.00	120.02	180.08	240.19	300.38	360.66	421.05	481.57	542.23	603.07	664.09	60

gd u	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	gd u
0′	664.09	725.32	786.78	848.49	910.46	972.73	1035.30	1098.22	1161.49	1225.14	0′
1	665.11	726.34	787.81	849.52	911.50	973.77	1036.35	1099.27	1162.54	1226.20	1
2	666.13	727.37	788.83	850.55	912.53	974.81	1037.40	1100.32	1163.60	1227.27	2
3	667.15	728.39	789.86	851.58	913.57	975.85	1038.44	1101.37	1164.66	1228.33	3
4	668.17	729.41	790.89	852.61	914.60	976.89	1039.49	1102.42	1165.72	1229.40	4
5	669.19	730.43	791.91	853.64	915.64	977.93	1040.53	1103.47	1166.78	1230.46	5
6	670.21	731.46	792.94	854.67	916.67	978.97	1041.58	1104.53	1167.83	1231.53	6
7	671.22	732.48	793.97	855.70	917.71	980.01	1042.63	1105.58	1168.89	1232.59	7
8	672.24	733.50	794.99	856.73	918.75	981.05	1043.67	1106.63	1169.95	1233.66	8
9	673.26	734.53	796.02	857.76	919.78	982.09	1044.72	1107.68	1171.01	1234.72	9
10	674.28	735.55	797.04	858.80	920.82	983.13	1045.77	1108.74	1172.07	1235.79	10
11	675.30	736.57	798.07	859.83	921.85	984.17	1046.81	1109.79	1173.13	1236.85	11
12	676.32	737.59	799.10	860.86	922.89	985.22	1047.86	1110.84	1174.19	1237.92	12
13	677.34	738.62	800.13	861.89	923.93	986.26	1048.91	1111.89	1175.24	1238.98	13
14	678.36	739.64	801.15	862.92	924.96	987.30	1049.95	1112.95	1176.30	1240.05	14
15	679.38	740.66	802.18	863.95	926.00	988.34	1051.00	1114.00	1177.36	1241.11	15
16	680.40	741.69	803.21	864.98	927.03	989.38	1052.05	1115.05	1178.42	1242.18	16
17	681.42	742.71	804.24	866.02	928.07	990.42	1053.09	1116.11	1179.48	1243.25	17
18	682.44	743.73	805.26	867.05	929.11	991.47	1054.14	1117.16	1180.54	1244.31	18
19	683.46	744.76	806.29	868.08	930.15	992.51	1055.19	1118.21	1181.60	1245.38	19
20	684.48	745.78	807.32	869.11	931.18	993.55	1056.24	1119.27	1182.66	1246.44	20
21	685.50	746.81	808.35	870.14	932.22	994.59	1057.28	1120.32	1183.72	1247.51	21
22	686.52	747.83	809.37	871.18	933.26	995.63	1058.33	1121.37	1184.78	1248.58	22
23	687.54	748.85	810.40	872.21	934.29	996.68	1059.38	1122.43	1185.84	1249.64	23
24	688.56	749.88	811.43	873.24	935.33	997.72	1060.43	1123.48	1186.90	1250.71	24
25	689.58	750.90	812.46	874.27	936.37	998.76	1061.48	1124.53	1187.96	1251.78	25
26	690.60	751.92	813.49	875.31	937.40	999.80	1062.52	1125.59	1189.02	1252.85	26
27	691.62	752.95	814.52	876.34	938.44	1000.85	1063.57	1126.64	1190.08	1253.91	27
28	692.64	753.97	815.54	877.37	939.48	1001.89	1064.62	1127.70	1191.14	1254.98	28
29	693.66	755.00	816.57	878.40	940.52	1002.93	1065.67	1128.75	1192.20	1256.05	29
30	694.68	756.02	817.60	879.44	941.56	1003.97	1066.72	1129.81	1193.26	1257.12	30
31	695.70	757.05	818.63	880.47	942.59	1005.02	1067.77	1130.86	1194.32	1258.18	31
32	696.72	758.07	819.66	881.50	943.63	1006.06	1068.81	1131.92	1195.39	1259.25	32
33	697.74	759.09	820.69	882.54	944.67	1007.10	1069.86	1132.97	1196.45	1260.32	33
34	698.76	760.12	821.71	883.57	945.71	1008.15	1070.91	1134.03	1197.51	1261.39	34
35	699.78	761.14	822.74	884.60	946.74	1009.19	1071.96	1135.08	1198.57	1262.45	35
36	700.80	762.17	823.77	885.64	947.78	1010.23	1073.01	1136.14	1199.63	1263.52	36
37	701.82	763.19	824.80	886.67	948.82	1011.28	1074.06	1137.19	1200.69	1264.59	37
38	702.85	764.22	825.83	887.70	949.86	1012.32	1075.11	1138.25	1201.75	1265.66	38
39	703.87	765.24	826.86	888.74	950.90	1013.36	1076.16	1139.30	1202.82	1266.73	39
40	704.89	766.27	827.89	889.77	951.94	1014.41	1077.21	1140.36	1203.88	1267.80	40
41	705.91	767.29	828.92	890.80	952.98	1015.45	1078.26	1141.41	1204.94	1268.87	41
42	706.93	768.32	829.95	891.84	954.01	1016.50	1079.31	1142.47	1206.00	1269.93	42
43	707.95	769.34	830.98	892.87	955.05	1017.54	1080.36	1143.52	1207.06	1271.00	43
44	708.97	770.37	832.00	893.91	956.09	1018.58	1081.41	1144.58	1208.13	1272.07	44
45	709.99	771.39	833.03	894.94	957.13	1019.63	1082.46	1145.64	1209.19	1273.14	45
46	711.02	772.42	834.06	895.97	958.17	1020.67	1083.51	1146.69	1210.25	1274.21	46
47	712.04	773.44	835.09	897.01	959.21	1021.72	1084.56	1147.75	1211.31	1275.28	47
48	713.06	774.47	836.12	898.04	960.25	1022.76	1085.61	1148.80	1212.38	1276.35	48
49	714.08	775.49	837.15	899.08	961.29	1023.81	1086.66	1149.86	1213.44	1277.42	49
50	715.10	776.52	838.18	900.11	962.33	1024.85	1087.71	1150.92	1214.50	1278.49	50
51	716.12	777.54	839.21	901.15	963.37	1025.90	1088.76	1151.97	1215.57	1279.56	51
52	717.15	778.57	840.24	902.18	964.41	1026.94	1089.81	1153.03	1216.63	1280.63	52
53	718.17	779.59	841.27	903.22	965.45	1027.99	1090.86	1154.09	1217.69	1281.70	53
54	719.19	780.62	842.30	904.25	966.49	1029.03	1091.91	1155.14	1218.76	1282.77	54
55	720.21	781.65	843.33	905.28	967.53	1030.08	1092.96	1156.20	1219.82	1283.84	55
56	721.23	782.67	844.36	906.32	968.57	1031.12	1094.01	1157.26	1220.88	1284.91	56
57	722.26	783.70	845.39	907.35	969.61	1032.17	1095.06	1158.32	1221.95	1285.98	57
58	723.28	784.73	846.42	908.39	970.65	1033.21	1096.11	1159.37	1223.01	1287.05	58
59	724.30	785.75	847.45	909.43	971.69	1034.26	1097.16	1160.43	1224.07	1288.13	59
60	725.32	786.78	848.49	910.46	972.73	1035.30	1098.22	1161.49	1225.14	1289.20	60

gd u	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	gd u
0′	1289.20	1353.69	1418.63	1484.06	1549.99	1616.47	1683.52	1751.16	1819.44	1888.38	0′
1	1290.27	1354.76	1419.72	1485.15	1551.10	1617.58	1684.64	1752.29	1820.58	1889.53	1
2	1291.34	1355.84	1420.80	1486.25	1552.20	1618.70	1685.76	1753.43	1821.72	1890.69	2
3	1292.41	1356.92	1421.89	1487.34	1553.31	1619.81	1686.88	1754.56	1822.87	1891.84	3
4	1293.48	1358.00	1422.98	1488.44	1554.41	1620.92	1688.01	1755.69	1824.01	1893.00	4
5	1294.55	1359.08	1424.06	1489.53	1555.51	1622.04	1689.13	1756.83	1825.16	1894.15	5
6	1295.63	1360.16	1425.15	1490.63	1556.62	1623.15	1690.25	1757.96	1826.30	1895.31	6
7	1296.70	1361.24	1426.24	1491.72	1557.72	1624.26	1691.38	1759.09	1827.44	1896.46	7
8	1297.77	1362.32	1427.32	1492.82	1558.83	1625.38	1692.50	1760.23	1828.59	1897.62	8
9	1298.84	1363.40	1428.41	1493.91	1559.93	1626.49	1693.62	1761.36	1829.73	1898.78	9
10	1299.91	1364.48	1429.50	1495.01	1561.04	1627.61	1694.75	1762.50	1830.88	1899.93	10
11	1300.99	1365.56	1430.59	1496.11	1562.14	1628.72	1695.87	1763.63	1832.02	1901.09	11
12	1302.06	1366.64	1431.68	1497.20	1563.25	1629.84	1697.00	1764.77	1833.17	1902.25	12
13	1303.13	1367.72	1432.76	1498.30	1564.35	1630.95	1698.12	1765.90	1834.32	1903.40	13
14	1304.20	1368.80	1433.85	1499.40	1565.46	1632.06	1699.25	1767.04	1835.46	1904.56	14
15	1305.28	1369.88	1434.94	1500.49	1566.56	1633.18	1700.37	1768.17	1836.61	1905.72	15
16	1306.35	1370.96	1436.03	1501.59	1567.67	1634.29	1701.50	1769.31	1837.75	1906.88	16
17	1307.42	1372.04	1437.12	1502.69	1568.77	1635.41	1702.62	1770.44	1838.90	1908.03	17
18	1308.50	1373.12	1438.21	1503.78	1569.88	1636.52	1703.75	1771.58	1840.05	1909.19	18
19	1309.57	1374.20	1439.29	1504.88	1570.99	1637.64	1704.87	1772.71	1841.19	1910.35	19
20	1310.64	1375.28	1440.38	1505.98	1572.09	1638.76	1706.00	1773.85	1842.34	1911.51	20
21	1311.72	1376.36	1441.47	1507.08	1573.20	1639.87	1707.12	1774.98	1843.49	1912.67	21
22	1312.79	1377.44	1442.56	1508.17	1574.31	1640.99	1708.25	1776.12	1844.64	1913.83	22
23	1313.86	1378.52	1443.65	1509.27	1575.41	1642.10	1709.37	1777.26	1845.78	1914.98	23
24	1314.94	1379.61	1444.74	1510.37	1576.52	1643.22	1710.50	1778.39	1846.93	1916.14	24
25	1316.01	1380.69	1445.83	1511.47	1577.63	1644.34	1711.63	1779.53	1848.08	1917.30	25
26	1317.08	1381.77	1446.92	1512.57	1578.73	1645.45	1712.75	1780.67	1849.23	1918.46	26
27	1318.16	1382.85	1448.01	1513.67	1579.84	1646.57	1713.88	1781.81	1850.37	1919.62	27
28	1319.23	1383.93	1449.10	1514.76	1580.95	1647.69	1715.01	1782.94	1851.52	1920.78	28
29	1320.31	1385.02	1450.19	1515.86	1582.06	1648.80	1716.14	1784.08	1852.67	1921.94	29
30	1321.38	1386.10	1451.28	1516.96	1583.17	1649.92	1717.26	1785.22	1853.82	1923.10	30
31	1322.45	1387.18	1452.37	1518.06	1584.27	1651.04	1718.39	1786.36	1854.97	1924.26	31
32	1323.53	1388.26	1453.46	1519.16	1585.38	1652.16	1719.52	1787.50	1856.12	1925.43	32
33	1324.60	1389.35	1454.55	1520.26	1586.49	1653.27	1720.65	1788.63	1857.27	1926.59	33
34	1325.68	1390.43	1455.64	1521.36	1587.60	1654.39	1721.77	1789.77	1858.42	1927.75	34
35	1326.75	1391.51	1456.73	1522.46	1588.71	1655.51	1722.90	1790.91	1859.57	1928.91	35
36	1327.83	1392.59	1457.83	1523.56	1589.82	1656.63	1724.03	1792.05	1860.72	1930.07	36
37	1328.90	1393.68	1458.92	1524.66	1590.92	1657.75	1725.16	1793.19	1861.87	1931.23	37
38	1329.98	1394.76	1460.01	1525.76	1592.03	1658.87	1726.29	1794.33	1863.02	1932.40	38
39	1331.06	1395.84	1461.10	1526.86	1593.14	1659.98	1727.42	1795.47	1864.17	1933.56	39
40	1332.13	1306.93	1462.19	1527.96	1594.25	1661.10	1728.54	1796.61	1865.32	1934.72	40
41	1333.21	1398.01	1463.28	1529.06	1595.36	1662.22	1729.67	1797.75	1866.47	1935.88	41
42	1334.29	1399.10	1464.38	1530.16	1596.47	1663.34	1730.80	1798.89	1867.62	1937.05	42
43	1335.37	1400.18	1465.47	1531.26	1597.58	1664.46	1731.93	1800.03	1868.77	1938.21	43
44	1336.44	1401.26	1466.56	1532.36	1598.69	1665.58	1733.06	1801.17	1869.92	1939.37	44
45	1337.52	1402.35	1467.65	1533.46	1599.80	1666.70	1734.19	1802.31	1871.08	1940.54	45
46	1338.60	1403.43	1468.75	1534.56	1600.91	1667.82	1735.32	1803.45	1872.23	1941.70	46
47	1339.67	1404.52	1469.84	1535.66	1602.02	1668.94	1736.45	1804.59	1873.38	1942.86	47
48	1340.75	1405.60	1470.93	1536.77	1603.13	1670.06	1737.58	1805.73	1874.53	1944.03	48
49	1341.83	1406.69	1472.02	1537.87	1604.24	1671.18	1738.71	1806.87	1875.69	1945.19	49
50	1342.91	1407.77	1473.12	1538.97	1605.35	1672.30	1739.84	1808.01	1876.84	1946.36	50
51	1343.98	1408.86	1474.21	1540.07	1606.46	1673.42	1740.98	1809.15	1877.99	1947.52	51
52	1345.06	1409.94	1475.30	1541.17	1607.58	1674.54	1742.11	1810.30	1879.14	1948.69	52
53	1346.14	1411.03	1476.40	1542.27	1608.69	1675.66	1743.24	1811.44	1880.30	1949.85	53
54	1347.22	1412.11	1477.49	1543.38	1609.80	1676.79	1744.37	1812.58	1881.45	1951.02	54
55	1348.29	1413.20	1478.59	1544.48	1610.91	1677.91	1745.50	1813.72	1882.60	1952.18	55
56	1349.37	1414.28	1479.68	1545.58	1612.02	1679.03	1746.63	1814.86	1883.76	1953.35	56
57	1350.45	1415.37	1480.77	1546.69	1613.13	1680.15	1747.76	1816.01	1884.91	1954.51	57
58	1351.53	1416.46	1481.87	1547.79	1614.25	1681.27	1748.90	1817.15	1886.07	1955.68	58
59	1352.61	1417.54	1482.96	1548.89	1615.36	1682.39	1750.03	1818.29	1887.22	1956.85	59
60	1353.69	1418.63	1484.06	1549.99	1616.47	1683.52	1751.16	1819.44	1888.38	1958.01	60

gd u	31°	32°	33°	34°	35°	36°	37°	38°	39°	40°	gd u
0′	1958.01	2028.38	2099.53	2171.48	2244.29	2317.99	2392.63	2468.26	2544.93	2622.69	0′
1	1959.18	2029.56	2100.72	2172.69	2245.51	2319.22	2393.88	2469.53	2546.22	2624.00	1
2	1960.35	2030.74	2101.91	2173.89	2246.73	2320.46	2395.14	2470.80	2547.50	2625.30	2
3	1961.51	2031.92	2103.10	2175.10	2247.95	2321.70	2396.39	2472.07	2548.79	2626.61	3
4	1962.68	2033.10	2104.30	2176.31	2249.17	2322.93	2397.64	2473.34	2550.08	2627.91	4
5	1963.85	2034.28	2105.49	2177.51	2250.39	2324.17	2398.90	2474.61	2551.37	2629.22	5
6	1965.02	2035.46	2106.68	2178.72	2251.62	2325.41	2400.15	2475.88	2552.66	2630.53	6
7	1966.18	2036.64	2107.88	2179.93	2252.84	2326.65	2401.40	2477.15	2553.95	2631.84	7
8	1967.35	2037.82	2109.07	2181.14	2254.06	2327.89	2402.66	2478.42	2555.23	2633.14	8
9	1968.52	2039.00	2110.27	2182.35	2255.28	2329.12	2403.91	2479.69	2556.52	2634.45	9
10	1969.69	2040.19	2111.46	2183.55	2256.51	2330.36	2405.17	2480.97	2557.81	2635.76	10
11	1970.86	2041.37	2112.66	2184.76	2257.73	2331.60	2406.42	2482.24	2559.10	2637.07	11
12	1972.03	2042.55	2113.85	2185.97	2258.95	2332.84	2407.68	2483.51	2560.39	2638.38	12
13	1973.20	2043.73	2115.05	2187.18	2260.18	2334.08	2408.93	2484.78	2561.68	2639.69	13
14	1974.37	2044.91	2116.24	2188.39	2261.40	2335.32	2410.19	2486.06	2562.97	2641.00	14
15	1975.54	2046.10	2117.44	2189.60	2262.63	2336.56	2411.44	2487.33	2564.27	2642.31	15
16	1976.71	2047.28	2118.63	2190.81	2263.85	2337.80	2412.70	2488.60	2565.56	2643.62	16
17	1977.88	2048.46	2119.83	2192.02	2265.08	2339.04	2413.96	2489.88	2566.85	2644.93	17
18	1979.05	2049.64	2121.03	2193.23	2266.30	2340.28	2415.21	2491.15	2568.14	2646.24	18
19	1980.22	2050.83	2122.22	2194.44	2267.53	2341.52	2416.47	2492.43	2569.43	2647.55	19
20	1981.39	2052.01	2123.42	2195.65	2268.75	2342.76	2417.73	2493.70	2570.73	2648.86	20
21	1982.56	2053.19	2124.62	2196.86	2269.98	2344.00	2418.99	2494.97	2572.02	2650.17	21
22	1983.73	2054.38	2125.81	2198.07	2271.20	2345.25	2420.24	2496.25	2573.31	2651.49	22
23	1984.90	2055.56	2127.01	2199.29	2272.43	2346.49	2421.50	2497.52	2574.61	2652.80	23
24	1986.07	2056.75	2128.21	2200.50	2273.66	2347.73	2422.76	2498.80	2575.90	2654.11	24
25	1987.24	2057.93	2129.41	2201.71	2274.88	2348.97	2424.02	2500.08	2577.19	2655.43	25
26	1988.41	2059.11	2130.61	2202.92	2276.11	2350.21	2425.28	2501.35	2578.49	2656.74	26
27	1989.59	2060.30	2131.80	2204.14	2277.34	2351.46	2426.54	2502.63	2579.78	2658.05	27
28	1990.76	2061.49	2133.00	2205.35	2278.57	2352.70	2427.80	2503.91	2581.08	2659.37	28
29	1991.93	2062.67	2134.20	2206.56	2279.79	2353.95	2429.06	2505.18	2582.37	2660.68	29
30	1993.10	2063.86	2135.40	2207.78	2281.02	2355.19	2430.32	2506.46	2583.67	2662.00	30
31	1994.28	2065.04	2136.60	2208.99	2282.25	2356.43	2431.58	2507.74	2584.97	2663.31	31
32	1995.45	2066.23	2137.80	2210.20	2283.48	2357.68	2432.84	2509.02	2586.26	2664.63	32
33	1996.62	2067.41	2139.00	2211.42	2284.71	2358.92	2434.10	2510.30	2587.56	2665.94	33
34	1997.80	2068.60	2140.20	2212.63	2285.94	2360.17	2435.36	2511.58	2588.86	2667.26	34
35	1998.97	2069.79	2141.40	2213.84	2287.17	2361.41	2436.62	2512.86	2590.15	2668.58	35
36	2000.14	2070.97	2142.60	2215.06	2288.40	2362.66	2437.89	2514.14	2591.45	2669.89	36
37	2001.32	2072.16	2143.80	2216.27	2289.63	2363.90	2439.15	2515.41	2592.75	2671.21	37
38	2002.49	2073.35	2145.00	2217.49	2290.86	2365.15	2440.41	2516.69	2594.05	2672.53	38
39	2003.67	2074.54	2146.20	2218.70	2292.09	2366.40	2441.68	2517.97	2595.35	2673.85	39
40	2004.84	2075.72	2147.40	2219.92	2293.32	2367.64	2442.94	2519.25	2596.65	2675.16	40
41	2006.02	2076.91	2148.61	2221.14	2294.55	2368.89	2444.20	2520.54	2597.95	2676.48	41
42	2007.19	2078.10	2149.81	2222.35	2295.78	2370.14	2445.47	2521.82	2599.24	2677.80	42
43	2008.37	2079.29	2151.01	2223.57	2297.01	2371.38	2446.73	2523.10	2600.54	2679.12	43
44	2009.54	2080.48	2152.21	2224.79	2298.24	2372.63	2447.99	2524.38	2601.84	2680.44	44
45	2010.72	2081.67	2153.41	2226.00	2299.48	2373.88	2449.26	2525.66	2603.14	2681.76	45
46	2011.90	2082.86	2154.62	2227.22	2300.71	2375.13	2450.52	2526.95	2604.45	2683.08	46
47	2013.07	2084.04	2155.82	2228.44	2301.94	2376.38	2451.79	2528.23	2605.75	2684.40	47
48	2014.25	2085.23	2157.02	2229.66	2303.17	2377.63	2453.05	2529.51	2607.05	2685.72	48
49	2015.43	2086.42	2158.23	2230.87	2304.41	2378.87	2454.32	2530.79	2608.35	2687.04	49
50	2016.60	2087.61	2159.43	2232.09	2305.64	2380.12	2455.58	2532.08	2609.65	2688.36	50
51	2017.78	2088.80	2160.63	2233.31	2306.88	2381.37	2456.85	2533.36	2610.95	2689.69	51
52	2018.96	2089.99	2161.84	2234.53	2308.11	2382.62	2458.12	2534.65	2612.26	2691.01	52
53	2020.13	2091.19	2163.04	2235.75	2309.34	2383.87	2459.39	2535.93	2613.56	2692.33	53
54	2021.31	2092.38	2164.25	2236.97	2310.58	2385.12	2460.65	2537.22	2614.86	2693.65	54
55	2022.49	2093.57	2165.45	2238.19	2311.81	2386.37	2461.92	2538.50	2616.17	2694.98	55
56	2023.67	2094.76	2166.66	2239.41	2313.05	2387.62	2463.19	2539.79	2617.47	2696.30	56
57	2024.85	2095.95	2167.86	2240.63	2314.28	2388.88	2464.46	2541.07	2618.78	2697.63	57
58	2026.03	2097.14	2169.07	2241.85	2315.52	2390.13	2465.72	2542.36	2620.08	2698.95	58
59	2027.20	2098.33	2170.28	2243.07	2316.75	2391.38	2466.99	2543.64	2621.38	2700.27	59
60	2028.38	2099.53	2171.48	2244.29	2317.99	2392.63	2468.26	2544.93	2622.69	2701.60	60

gd u	41°	42°	43°	44°	45°	46°	47°	48°	49°	50°	gd u
0′	2701′.60	2781.71	2863.10	2945.81	3029.94	3115.55	3202.71	3291.53	3382.08	3474.47	0′
1	2702.92	2783.06	2864.46	2947.21	3031.35	3116.99	3204.18	3293.02	3383.61	3476.03	1
2	2704.25	2784.40	2865.83	2948.60	3032.77	3118.43	3205.65	3294.52	3385.13	3477.59	2
3	2705.57	2785.75	2667.20	2949.99	3034.18	3119.87	3207.12	3296.01	3386.66	3479.14	3
4	2706.90	2787.09	2868.57	2951.38	3035.60	3121.31	3208.58	3297.51	3388.18	3480.70	4
5	2708.23	2788.44	2869.94	2952.77	3037.02	3122.75	3210.05	3299.01	3389.71	3482.26	5
6	2709.55	2789.79	2871.31	2954.16	3038.43	3124.19	3211.52	3300.51	3391.24	3483.82	6
7	2710.88	2791.14	2872.68	2955.56	3039.85	3125.63	3212.99	3302.00	3392.77	3485.38	7
8	2712.21	2792.49	2874.05	2956.95	3041.27	3127.08	3214.46	3303.50	3394.29	3486.94	8
9	2713.54	2793.84	2875.42	2958.34	3042.68	3128.52	3215.93	3305.00	3395.82	3488.50	9
10	2714.86	2795.19	2876.79	2959.74	3044.10	3129.96	3217.40	3306.50	3397.35	3490.06	10
11	2716.19	2796.54	2878.16	2961.13	3045.52	3131.41	3218.87	3308.00	3398.88	3491.62	11
12	2717.52	2797.89	2879.53	2962.53	3046.94	3132.85	3220.34	3309.50	3400.41	3493.18	12
13	2718.85	2799.24	2880.90	2963.92	3048.36	3134.30	3221.82	3311.00	3401.94	3494.74	13
14	2720.18	2800.59	2882.28	2965.32	3049.78	3135.75	3223.29	3312.50	3403.47	3496.31	14
15	2721.51	2801.94	2883.65	2966.71	3051.20	3137.19	3224.76	3314.00	3405.00	3497.87	15
16	2722.84	2803.29	2885.02	2968.11	3052.62	3138.64	3226.23	3315.50	3406.54	3499.43	16
17	2724.17	2804.64	2886.39	2969.50	3054.04	3140.08	3227.71	3317.00	3408.07	3501.00	17
18	2725.50	2805.99	2887.77	2970.90	3055.46	3141.53	3229.18	3318.51	3409.60	3502.56	18
19	2726.83	2807.34	2889.14	2972.30	3056.88	3142.98	3230.66	3320.01	3411.14	3504.13	19
20	2728.17	2808.70	2890.52	2973.70	3058.31	3144.42	3232.13	3321.52	3412.67	3505.70	20
21	2729.50	2810.05	2891.89	2975.09	3059.73	3145.87	3233.61	3323.02	3414.20	3507.26	21
22	2730.83	2811.40	2893.27	2976.49	3061.15	3147.32	3235.08	3324.53	3415.74	3508.83	22
23	2732.16	2812.76	2894.64	2977.89	3062.58	3148.77	3236.56	3326.03	3417.28	3510.40	23
24	2733.50	2814.11	2896.02	2979.29	3064.00	3150.22	3238.04	3327.54	3418.81	3511.97	24
25	2734.83	2815.46	2897.40	2980.69	3065.42	3151.67	3239.52	3329.04	3420.35	3513.54	25
26	2736.16	2816.82	2898.77	2982.09	3066.85	3153.12	3240.99	3330.55	3421.89	3515.11	26
27	2737.50	2818.17	2900.15	2983.49	3068.27	3154.57	3242.47	3332.06	3423.43	3516.68	27
28	2738.83	2819.53	2901.53	2984.89	3069.70	3156.03	3243.95	3333.56	3424.96	3518.25	28
29	2740.17	2820.88	2902.91	2986.29	3071.13	3157.48	3245.43	3335.07	3426.50	3519.82	29
30	2741.50	2822.24	2904.28	2987.70	3072.55	3158.93	3246.91	3336.58	3428.04	3521.39	30
31	2742.84	2823.60	2905.66	2989.10	3073.98	3160.38	3248.39	3338.09	3429.58	3522.96	31
32	2744.17	2824.95	2907.04	2990.50	3075.41	3161.84	3249.87	3339.60	3431.12	3524.54	32
33	2745.51	2826.31	2908.42	2991.90	3076.84	3163.29	3251.35	3341.11	3432.66	3526.11	33
34	2746.84	2827.67	2909.80	2993.31	3078.26	3164.74	3252.84	3342.62	3434.20	3527.68	34
35	2748.18	2829.03	2911.18	2994.71	3079.69	3166.20	3254.32	3344.14	3435.75	3529.26	35
36	2749.52	2830.39	2912.56	2996.12	3081.12	3167.65	3255.80	3345.65	3437.29	3530.83	36
37	2750.85	2831.74	2913.94	2997.52	3082.55	3169.11	3257.28	3347.16	3438.83	3532.41	37
38	2752.19	2833.10	2915.32	2998.93	3083.98	3170.57	3258.77	3348.67	3440.38	3533.99	38
39	2753.53	2834.46	2916.71	3000.33	3085.41	3172.02	3260.25	3350.19	3441.92	3535.56	39
40	2754.87	2835.82	2918.09	3001.74	3086.84	3173.48	3261.74	3351.70	3443.47	3537.14	40
41	2756.21	2837.18	2919.47	3003.14	3088.27	3174.94	3263.22	3353.21	3445.01	3538.72	41
42	2757.55	2838.54	2920.85	3004.55	3089.70	3176.40	3264.71	3354.73	3446.56	3540.30	42
43	2758.89	2839.90	2922.24	3005.96	3091.14	3177.85	3266.19	3356.24	3448.10	3541.88	43
44	2760.23	2841.27	2923.62	3007.36	3092.57	3179.31	3267.68	3357.76	3449.65	3543.45	44
45	2761.57	2842.63	2925.01	3008.77	3094.00	3180.77	3269.17	3359.28	3451.20	3545.04	45
46	2762.91	2843.99	2926.39	3010.18	3095.43	3182.23	3270.65	3360.79	3452.75	3546.62	46
47	2764.25	2845.35	2927.78	3011.59	3096.87	3183.69	3272.14	3362.31	3454.29	3548.20	47
48	2765.59	2846.71	2929.16	3013.00	3098.30	3185.15	3273.63	3363.83	3455.84	3549.78	48
49	2766.93	2848.08	2930.55	3014.41	3099.74	3186.61	3275.12	3365.35	3457.39	3551.36	49
50	2768.27	2849.44	2931.93	3015.82	3101.17	3188.07	3276.61	3366.87	3458.94	3552.94	50
51	2769.62	2850.81	2933.32	3017.23	3102.60	3189.54	3278.10	3368.39	3460.49	3554.53	51
52	2770.96	2852.17	2934.71	3018.64	3104.04	3191.00	3279.59	3369.91	3462.04	3556.11	52
53	2772.30	2853.53	2936.09	3020.05	3105.48	3192.46	3281.08	3371.43	3463.60	3557.70	53
54	2773.64	2854.90	2937.48	3021.46	3106.92	3193.92	3282.57	3372.95	3465.15	3559.28	54
55	2774.99	2856.26	2938.87	3022.87	3108.35	3195.39	3284.06	3374.47	3466.70	3560.87	55
56	2776.33	2857.63	2940.26	3024.29	3109.79	3196.85	3285.56	3375.99	3468.26	3562.45	56
57	2777.68	2858.99	2941.65	3025.70	3111.23	3198.32	3287.05	3377.51	3469.81	3564.04	57
58	2779.02	2860.36	2943.04	3027.11	3112.67	3199.78	3288.54	3379.04	3471.36	3565.63	58
59	2780.37	2861.73	2944.42	3028.52	3114.11	3201.25	3290.04	3380.56	3472.92	3567.22	59
60	2781.71	2863.10	2945.81	3029.94	3115.55	3202.71	3291.53	3382.08	3474.47	3568.81	60

gd u	51°	52°	53°	54°	55°	56°	57°	58°	59°	60°	gd u
0′	3568.81	3665.19	3763.76	3864.64	3967.97	4073.90	4182.62	4294.30	4409.14	4527.37	0′
1	3570.40	3666.82	3765.42	3866.34	3969.71	4075.69	4184.46	4296.19	4411.08	4529.37	1
2	3571.99	3668.44	3767.09	3868.04	3971.46	4077.48	4186.29	4298.07	4413.03	4531.37	2
3	3573.58	3670.07	3768.75	3869.74	3973.20	4079.27	4188.13	4299.96	4414.97	4533.37	3
4	3575.17	3671.70	3770.41	3871.45	3974.95	4081.06	4189.97	4301.85	4416.92	4535.38	4
5	3576.76	3673.32	3772.08	3873.15	3976.69	4082.86	4191.81	4303.74	4418.86	4537.38	5
6	3578.35	3674.95	3773.74	3874.86	3978.44	4084.65	4193.65	4305.64	4420.81	4539.39	6
7	3579.94	3676.58	3775.41	3876.56	3980.19	4086.44	4195.49	4307.53	4422.76	4541.39	7
8	3581.54	3678.21	3777.08	3878.27	3981.94	4088.24	4197.33	4309.42	4424.70	4543.40	8
9	3583.13	3679.84	3778.74	3879.98	3983.69	4090.03	4199.17	4311.32	4426.65	4545.41	9
10	3584.73	3681.47	3780.41	3881.68	3985.44	4091.83	4201.02	4313.21	4428.60	4547.42	10
11	3586.32	3683.10	3782.08	3883.39	3987.19	4093.62	4202.87	4315.11	4430.56	4549.43	11
12	3587.92	3684.73	3783.75	3885.10	3988.94	4095.42	4204.71	4317.01	4432.51	4551.44	12
13	3589.51	3686.36	3785.42	3886.81	3990.69	4097.22	4206.56	4318.91	4434.46	4553.45	13
14	3591.11	3687.99	3787.09	3888.52	3992.45	4099.02	4208.41	4320.80	4436.42	4555.47	14
15	3592.71	3689.63	3788.76	3890.23	3994.20	4100.82	4210.26	4322.70	4438.37	4557.48	15
16	3594.30	3691.26	3790.43	3891.95	3995.96	4102.62	4212.10	4324.61	4440.33	4559.50	16
17	3595.90	3692.90	3792.10	3893.66	3997.71	4104.42	4213.95	4326.51	4442.29	4561.52	17
18	3597.50	3694.53	3793.78	3895.37	3999.47	4106.22	4215.80	4328.41	4444.24	4563.53	18
19	3599.10	3696.17	3795.45	3897.09	4001.22	4108.02	4217.66	4330.31	4446.20	4565.55	19
20	3600.70	3697.80	3797.12	3898.80	4002.98	4109.82	4219.51	4332.22	4448.16	4567.57	20
21	3602.30	3699.44	3798.80	3900.52	4004.74	4111.63	4221.36	4334.12	4450.12	4569.59	21
22	3603.90	3701.08	3800.47	3902.23	4006.50	4113.44	4223.22	4336.03	4452.09	4571.61	22
23	3605.50	3702.71	3802.15	3903.95	4008.26	4115.24	4225.07	4337.94	4454.05	4573.64	23
24	3607.11	3704.35	3803.83	3905.67	4010.02	4117.05	4226.93	4339.84	4456.01	4575.66	24
25	3608.71	3705.99	3805.50	3907.38	4011.78	4118.85	4228.78	4341.75	4457.98	4577.69	25
26	3610.32	3707.63	3807.18	3909.10	4013.54	4120.66	4230.64	4343.66	4459.94	4579.71	26
27	3611.92	3709.27	3808.86	3910.82	4015.31	4122.47	4232.50	4345.57	4461.91	4581.74	27
28	3613.52	3710.91	3810.54	3912.54	4017.07	4124.28	4234.36	4347.48	4463.88	4583.77	28
29	3615.13	3712.56	3812.22	3914.26	4018.84	4126.09	4236.22	4349.40	4465.85	4585.80	29
30	3616.74	3714.20	3813.90	3915.99	4020.60	4127.90	4238.08	4351.31	4467.82	4587.83	30
31	3618.34	3715.84	3815.58	3917.71	4022.37	4129.72	4239.94	4353.23	4469.79	4589.86	31
32	3619.95	3717.48	3817.27	3919.43	4024.13	4131.53	4241.80	4355.14	4471.76	4591.89	32
33	3621.56	3719.13	3818.95	3921.16	4025.90	4133.34	4243.67	4357.06	4473.73	4593.92	33
34	3623.17	3720.77	3820.63	3922.88	4027.67	4135.16	4245.53	4358.97	4475.71	4595.96	34
35	3624.78	3722.42	3822.32	3924.61	4029.44	4136.97	4247.39	4360.89	4477.68	4598.00	35
36	3626.39	3724.06	3824.00	3926.33	4031.21	4138.79	4249.26	4362.81	4479.66	4600.03	36
37	3628.00	3725.71	3825.69	3928.06	4032.98	4140.61	4251.13	4364.73	4481.63	4602.07	37
38	3629.61	3727.36	3827.37	3929.79	4034.75	4142.42	4252.99	4366.65	4483.61	4604.11	38
39	3631.22	3729.01	3829.06	3931.51	4036.52	4144.24	4254.86	4368.57	4485.59	4606.15	39
40	3632.83	3730.66	3830.75	3933.24	4038.29	4146.06	4256.73	4370.50	4487.57	4608.19	40
41	3634.44	3732.30	3832.43	3934.97	4040.07	4147.88	4258.60	4372.42	4489.55	4610.23	41
42	3636.06	3733.95	3834.12	3936.70	4041.84	4149.70	4260.47	4374.34	4491.53	4612.27	42
43	3637.67	3735.61	3835.81	3938.43	4043.61	4151.52	4262.34	4376.27	4493.51	4614.32	43
44	3639.28	3737.26	3837.50	3940.16	4045.39	4153.35	4264.22	4378.20	4495.50	4616.36	44
45	3640.90	3738.91	3839.19	3941.90	4047.17	4155.17	4266.09	4380.12	4497.48	4618.41	45
46	3642.51	3740.56	3840.88	3943.63	4048.94	4157.00	4267.97	4382.05	4499.47	4620.45	46
47	3644.13	3742.21	3842.58	3945.36	4050.72	4158.82	4269.84	4383.98	4501.45	4622.50	47
48	3645.75	3743.87	3844.27	3947.10	4052.50	4160.65	4271.72	4385.91	4503.44	4624.55	48
49	3647.36	3745.52	3845.96	3948.83	4054.28	4162.47	4273.59	4387.84	4505.43	4626.60	49
50	3648.98	3747.18	3847.66	3950.57	4056.06	4164.30	4275.47	4389.77	4507.42	4628.65	50
51	3650.60	3748.83	3849.35	3952.31	4057.84	4166.13	4277.35	4391.70	4509.41	4630.71	51
52	3652.22	3750.49	3851.05	3954.04	4059.62	4167.96	4279.23	4393.64	4511.40	4632.76	52
53	3653.84	3752.15	3852.75	3955.78	4061.41	4169.79	4281.11	4395.57	4513.39	4634.81	53
54	3655.46	3753.80	3854.44	3957.52	4063.19	4171.62	4282.99	4397.51	4515.39	4636.87	54
55	3657.08	3755.46	3856.14	3959.26	4064.97	4173.45	4284.87	4399.44	4517.38	4638.93	55
56	3658.70	3757.12	3857.84	3961.00	4066.76	4175.28	4286.76	4401.38	4519.38	4640.98	56
57	3660.32	3758.78	3859.54	3962.74	4068.54	4177.12	4288.64	4403.32	4521.37	4643.04	57
58	3661.95	3760.44	3861.24	3964.48	4070.33	4178.95	4290.53	4405.26	4523.37	4645.10	58
59	3663.57	3762.10	3862.94	3966.22	4072.12	4180.78	4292.41	4407.20	4525.37	4647.16	59
60	3665.19	3763.76	3864.64	3967.97	4073.90	4182.62	4294.30	4409.14	4527.37	4649.23	60

gd u	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	gd u
0′	4649.23	4774.98	4904.94	5039.42	5178.81	5323.51	5474.01	5630.82	5794.56	5965.92	0′
1	4651.29	4777.11	4907.14	5041.70	5181.18	5325.97	5476.57	5633.49	5797.35	5968.84	1
2	4653.35	4779.25	4909.35	5043.99	5183.54	5328.43	5479.13	5636.16	5800.14	5971.77	2
3	4655.42	4781.38	4911.55	5046.27	5185.91	5330.90	5481.69	5638.84	5802.94	5974.70	3
4	4657.49	4783.51	4913.76	5048.56	5188.29	5333.36	5484.26	5641.51	5805.74	5977.63	4
5	4659.55	4785.65	4915.97	5050.85	5190.66	5335.83	5486.83	5644.19	5808.54	5980.57	5
6	4661.62	4787.79	4918.18	5053.14	5193.03	5338.30	5489.40	5646.87	5811.34	5983.50	6
7	4663.69	4789.92	4920.39	5055.43	5195.41	5340.77	5491.97	5649.56	5814.15	5986.44	
8	4665.76	4792.06	4922.60	5057.72	5197.79	5343.24	5494.54	5652.24	5816.95	5989.38	
9	4667.83	4794.20	4924.81	5060.01	5200.17	5345.71	5497.11	5654.93	5819.76	5992.33	9
10	4669.91	4796.34	4927.03	5062.30	5202.55	5348.18	5499.69	5657.61	5822.57	5995.27	10
11	4671.98	4798.49	4929.24	5064.60	5204.93	5350.66	5502.27	5660.30	5825.39	5998.22	11
12	4674.06	4800.63	4931.46	5066.90	5207.31	5353.14	5504.85	5663.00	5828.20	6001.17	12
13	4676.13	4802.77	4933.68	5069.19	5209.70	5355.61	5507.43	5665.69	5831.02	6004.13	13
14	4678.21	4804.92	4935.90	5071.49	5212.08	5358.09	5510.01	5668.38	5833.84	6007.08	14
15	4680.29	4807.07	4938.12	5073.80	5214.47	5360.58	5512.60	5671.08	5836.66	6010.04	15
16	4682.37	4809.21	4940.34	5076.10	5216.86	5363.06	5515.18	5673.78	5839.48	6013.00	16
17	4684.45	4811.36	4942.57	5078.40	5219.25	5365.55	5517.77	5676.48	5842.31	6015.96	17
18	4686.53	4813.51	4944.79	5080.71	5221.64	5368.03	5520.36	5679.19	5845.13	6018.93	18
19	4688.61	4815.67	4947.02	5083.01	5224.04	5370.52	5522.95	5681.89	5847.96	6021.90	19
20	4690.70	4817.82	4949.24	5085.32	5226.43	5373.01	5525.55	5684.60	5850.79	6024.87	20
21	4692.78	4819.97	4951.47	5087.63	5228.83	5375.50	5528.14	5687.31	5853.63	6027.84	21
22	4694.87	4822.13	4953.70	5089.94	5231.23	5378.00	5530.74	5690.02	5856.47	6030.81	22
23	4696.96	4824.29	4955.94	5092.25	5233.63	5380.49	5533.34	5692.73	5859.31	6033.79	23
24	4699.05	4826.44	4958.17	5094.57	5236.03	5382.99	5535.94	5695.45	5862.15	6036.77	24
25	4701.14	4828.60	4960.40	5096.88	5238.43	5385.49	5538.55	5698.17	5864.99	6039.75	25
26	4703.23	4830.76	4962.64	5099.20	5240.84	5387.99	5541.15	5700.89	5867.84	6042.74	26
27	4705.32	4832.93	4964.87	5101.52	5243.24	5390.49	5543.76	5703.61	5870.69	6045.73	27
28	4707.41	4835.09	4967.11	5103.84	5245.65	5392.99	5546.37	5706.33	5873.54	6048.72	28
29	4709.51	4837.25	4969.35	5106.16	5248.06	5395.50	5548.98	5709.06	5876.39	6051.71	29
30	4711.60	4839.42	4971.59	5108.48	5250.47	5398.01	5551.59	5711.78	5879.24	6054.70	30
31	4713.70	4841.58	4973.83	5110.80	5252.88	5400.52	5554.20	5714.51	5882.10	6057.70	31
32	4715.79	4843.75	4976.08	5113.13	5255.30	5403.03	5556.82	5717.25	5884.96	6060.70	32
33	4717.89	4845.92	4978.32	5115.45	5257.71	5405.54	5559.44	5719.98	5887.82	6063.71	33
34	4719.99	4848.09	4980.57	5117.78	5260.13	5408.05	5562.06	5722.71	5890.68	6066.71	34
35	4722.09	4850.26	4982.82	5120.11	5262.55	5410.57	5564.68	5725.45	5893.55	6069.71	35
36	4724.19	4852.43	4985.06	5122.44	5264.97	5413.08	5567.30	5728.19	5896.41	6072.72	36
37	4726.30	4854.61	4987.31	5124.77	5267.39	5415.60	5569.93	5730.93	5899.28	6075.73	37
38	4728.40	4856.78	4989.56	5127.11	5269.81	5418.12	5572.55	5733.68	5902.15	6078.75	38
39	4730.51	4858.96	4991.82	5129.44	5272.23	5420.64	5575.18	5736.42	5905.03	6081.76	39
40	4732.61	4861.13	4994.07	5131.78	5274.66	5423.17	5577.81	5739.17	5907.90	6084.78	40
41	4734.72	4863.31	4996.32	5134.11	5277.09	5425.69	5580.44	5741.92	5910.78	6087.81	41
42	4736.83	4865.49	4998.58	5136.45	5279.52	5428.22	5583.08	5744.67	5913.67	6090.83	42
43	4738.94	4867.67	5000.84	5138.79	5281.95	5430.75	5585.71	5747.43	5916.55	6093.86	43
44	4741.05	4869.86	5003.10	5141.14	5284.38	5433.28	5588.35	5750.18	5919.44	6096.89	44
45	4743.16	4872.04	5005.36	5143.48	5286.82	5435.81	5590.99	5752.94	5922.32	6099.92	45
46	4745.28	4874.22	5007.62	5145.83	5289.25	5438.35	5593.64	5755.70	5925.22	6102.95	46
47	4747.39	4876.41	5009.88	5148.17	5291.69	5440.88	5596.28	5758.46	5928.11	6105.99	47
48	4749.51	4878.60	5012.15	5150.52	5294.13	5443.42	5598.93	5761.23	5931.00	6109.03	48
49	4751.63	4880.79	5014.41	5152.87	5296.57	5445.96	5601.57	5763.99	5933.90	6112.07	49
50	4753.74	4882.98	5016.68	5155.22	5299.01	5448.50	5604.22	5766.76	5936.80	6115.12	50
51	4755.86	4885.17	5018.94	5157.57	5301.45	5451.05	5606.87	5769.53	5939.70	6118.16	51
52	4757.98	4887.36	5021.21	5159.93	5303.90	5453.59	5609.53	5772.31	5942.61	6121.21	52
53	4760.10	4889.55	5023.48	5162.28	5306.34	5456.14	5612.18	5775.08	5945.51	6124.26	53
54	4762.23	4891.75	5025.76	5164.64	5308.79	5458.68	5614.84	5777.86	5948.42	6127.32	54
55	4764.35	4893.94	5028.03	5167.00	5311.24	5461.23	5617.50	5780.64	5951.33	6130.38	55
56	4766.47	4896.14	5030.30	5169.36	5313.69	5463.78	5620.16	5783.42	5954.24	6133.44	56
57	4768.60	4898.34	5032.58	5171.72	5316.15	5466.34	5622.82	5786.20	5957.16	6136.50	57
58	4770.73	4900.54	5034.86	5174.08	5318.60	5468.89	5625.49	5788.98	5960.08	6139.56	58
59	4772.86	4902.74	5037.14	5176.44	5321.06	5471.45	5628.15	5791.77	5963.00	6142.63	5
60	4774.98	4904.94	5039.42	5178.81	5323.51	5474.01	5630.82	5794.56	5965.92	6145.70	6

gd u	71°	72°	73°	74°	75°	76°	77°	78°	79°	80°	gd u
0′	6145.70	6334.84	6534.42	6745.74	6970.34	7210.07	7467.21	7744.57	8045.71	8375.20	0′
1	6148.77	6338.08	6537.85	6749.37	6974.20	7214.20	7471.66	7749.38	8050.95	8380.96	1
2	6151.85	6341.32	6541.27	6753.01	6978.07	7218.35	7476.11	7754.20	8056.20	8386.73	2
3	6154.93	6344.56	6544.70	6756.64	6981.95	7222.49	7480.57	7759.02	8061.46	8392.52	3
4	6158.01	6347.81	6548.13	6760.28	6985.83	7226.64	7485.03	7763.86	8066.73	8398.31	4
5	6161.09	6351.06	6551.57	6763.93	6989.71	7230.80	7489.50	7768.70	8072.01	8404.11	5
6	6164.18	6354.31	6555.01	6767.58	6993.60	7234.96	7493.98	7773.55	8077.29	8409.92	6
7	6167.27	6357.56	6558.45	6771.23	6997.49	7239.12	7498.46	7778.40	8082.58	8415.74	7
8	6170.36	6360.82	6561.89	6774.89	7001.38	7243.29	7502.95	7783.26	8087.88	8421.57	8
9	6173.45	6364.08	6565.34	6778.55	7005.28	7247.47	7507.44	7788.12	8093.19	8427.42	9
10	6176.55	6367.35	6568.79	6782.21	7009.19	7251.65	7511.94	7793.00	8098.51	8433.27	10
11	6179.65	6370.61	6572.25	6785.88	7013.10	7255.83	7516.45	7797.88	8103.83	8439.13	11
12	6182.75	6373.88	6575.70	6789.55	7017.01	7260.02	7520.96	7802.76	8109.17	8445.00	12
13	6185.85	6377.16	6579.16	6793.22	7020.93	7264.22	7525.47	7807.66	8114.51	8450.88	13
14	6188.96	6380.43	6582.63	6796.90	7024.85	7268.42	7530.00	7812.56	8119.86	8456.77	14
15	6192.07	6383.71	6586.10	6800.58	7028.77	7272.62	7534.53	7817.46	8125.22	8462.67	15
16	6195.18	6386.99	6589.57	6804.27	7032.70	7276.83	7539.06	7822.38	8130.58	8468.58	16
17	6198.30	6390.28	6593.05	6807.96	7036.64	7281.05	7543.60	7827.30	8135.95	8474.50	17
18	6201.42	6393.57	6596.52	6811.65	7040.58	7285.27	7548.15	7832.23	8141.33	8480.43	18
19	6204.54	6396.86	6600.01	6815.35	7044.52	7289.49	7552.70	7837.16	8146.72	8486.37	19
20	6207.66	6400.15	6603.49	6819.05	7048.47	7293.72	7557.26	7842.10	8152.12	8492.32	20
21	6210.78	6403.44	6606.98	6822.75	7052.42	7297.96	7561.82	7847.05	8157.53	8498.28	21
22	6213.91	6406.74	6610.47	6826.46	7056.37	7302.20	7566.39	7852.01	8162.95	8504.25	22
23	6217.04	6410.05	6613.96	6830.18	7060.33	7306.44	7570.96	7856.97	8168.37	8510.23	23
24	6220.18	6413.35	6617.46	6833.89	7064.30	7310.69	7575.54	7861.94	8173.80	8516.22	24
25	6223.31	6416.66	6620.97	6837.61	7068.27	7314.95	7580.13	7866.91	8179.24	8522.22	25
26	6226.45	6419.97	6624.47	6841.34	7072.24	7319.21	7584.72	7871.90	8184.69	8528.23	26
27	6229.59	6423.29	6627.98	6845.07	7076.22	7323.47	7589.32	7876.89	8190.15	8534.26	27
28	6232.74	6426.61	6631.49	6848.80	7080.20	7327.74	7593.93	7881.89	8195.61	8540.29	28
29	6235.89	6429.93	6635.01	6852.53	7084.19	7332.02	7598.54	7886.89	8201.09	8546.33	29
30	6239.04	6433.25	6638.53	6856.27	7088.18	7336.30	7603.16	7891.91	8206.57	8552.38	30
31	6242.19	6436.58	6642.05	6860.02	7092.18	7340.55	7607.78	7896.93	8212.06	8558.45	31
32	6245.35	6439.91	6645.58	6863.77	7096.18	7344.88	7612.41	7901.95	8217.56	8564.52	32
33	6248.50	6443.24	6649.11	6867.52	7100.18	7349.18	7617.04	7906.98	8223.07	8570.61	33
34	6251.67	6446.58	6652.64	6871.27	7104.19	7353.48	7621.68	7912.03	8228.59	8576.70	34
35	6254.83	6449.92	6656.18	6875.03	7108.21	7357.79	7626.33	7917.08	8234.12	8582.81	35
36	6258.00	6453.26	6659.72	6878.80	7112.23	7362.10	7630.99	7922.13	8239.66	8588.93	36
37	6261.17	6456.61	6663.26	6882.56	7116.25	7366.42	7635.65	7927.19	8245.20	8595.06	37
38	6264.34	6459.95	6666.81	6886.34	7120.28	7370.74	7640.31	7932.26	8250.75	8601.20	38
39	6267.51	6463.31	6670.36	6890.11	7124.31	7375.07	7644.98	7937.34	8256.31	8607.35	39
40	6270.69	6466.66	6673.91	6893.89	7128.35	7379.40	7649.66	7942.43	8261.88	8613.51	40
41	6273.87	6470.02	6677.47	6897.68	7132.39	7383.74	7654.35	7947.52	8267.46	8619.68	41
42	6277.05	6473.38	6681.03	6901.46	7136.43	7388.08	7659.04	7952.62	8273.05	8625.86	42
43	6280.24	6476.74	6684.59	6905.25	7140.48	7392.43	7663.74	7957.72	8278.65	8632.05	43
44	6283.43	6480.11	6688.16	6909.05	7144.54	7396.79	7668.44	7962.84	8284.25	8638.26	44
45	6286.62	6483.48	6691.73	6912.85	7148.60	7401.15	7673.15	7967.96	8289.87	8644.47	45
46	6289.82	6486.86	6695.31	6916.65	7152.67	7405.51	7677.87	7973.09	8295.49	8650.70	46
47	6293.01	6490.23	6698.89	6920.46	7156.74	7409.88	7682.59	7978.23	8301.12	8656.94	47
48	6296.21	6493.61	6702.47	6924.27	7160.81	7414.26	7687.32	7983.37	8306.77	8663.19	48
49	6299.42	6497.00	6706.06	6928.09	7164.89	7418.64	7692.05	7988.52	8312.42	8669.45	49
50	6302.62	6500.38	6709.65	6931.91	7168.97	7423.03	7696.79	7993.68	8318.08	8675.72	50
51	6305.83	6503.77	6713.24	6935.73	7173.06	7427.42	7701.54	7998.85	8323.75	8682.00	51
52	6309.04	6507.17	6716.84	6939.56	7177.15	7431.82	7706.30	8004.03	8329.43	8688.29	52
53	6312.26	6510.56	6720.44	6943.40	7181.25	7436.22	7711.06	8009.21	8335.12	8694.60	53
54	6315.48	6513.96	6724.04	6947.23	7185.35	7440.63	7715.83	8014.40	8340.82	8700.92	54
55	6318.70	6517.36	6727.65	6951.07	7189.46	7445.05	7720.60	8019.60	8346.52	8707.25	55
56	6321.92	6520.77	6731.26	6954.92	7193.57	7449.47	7725.38	8024.81	8352.24	8713.59	56
57	6325.14	6524.18	6734.88	6958.77	7197.69	7453.89	7730.17	8030.02	8357.96	8719.94	57
58	6328.37	6527.59	6738.50	6962.62	7201.81	7458.33	7734.96	8035.24	8363.70	8726.30	58
59	6331.61	6531.01	6742.12	6966.48	7205.94	7462.76	7739.76	8040.47	8369.44	8732.68	59
60	6334.84	6534.42	6745.74	6970.34	7210.07	7467.21	7744.57	8045.71	8375.20	8739.06	60

gd u	81°	82°	83°	84°	85°	86°	87°	88°	89°	gd u
0′	8739.06	9145.46	9605.82	10136.89	10764.62	11532.52	12522.11	13916.43	16299.56	0′
1	8745.46	9152.65	9614.03	10146.46	10776.11	11546.88	12541.27	13945.20	16357.34	1
2	8751.87	9159.86	9622.27	10156.07	10787.65	11561.31	12560.54	13974.22	16416.11	2
3	8758.29	9167.08	9630.52	10165.70	10799.22	11575.80	12579.91	14003.48	16475.90	3
4	8764.73	9174.32	9638.80	10175.37	10810.82	11590.34	12599.40	14033.00	16536.76	4
5	8771.17	9181.57	9647.09	10185.05	10822.47	11604.95	12619.00	14062.77	16598.69	5
6	8777.63	9188.84	9655.40	10194.77	10834.16	11619.62	12638.70	14092.80	16661.78	6
7	8784.10	9196.13	9663.74	10204.51	10845.89	11634.36	12658.53	14123.09	16726.04	7
8	8790.58	9203.42	9672.09	10214.28	10857.65	11649.16	12678.46	14153.66	16791.53	8
9	8797.08	9210.74	9680.47	10224.08	10869.46	11664.02	12698.52	14184.49	16858.29	9
10	8803.58	9218.07	9688.86	10233.90	10881.31	11678.94	12718.69	14215.61	16926.36	10
11	8810.10	9225.41	9697.28	10243.75	10893.20	11693.93	12738.98	14247.01	16995.81	11
12	8816.63	9232.77	9705.71	10253.64	10905.13	11708.99	12759.39	14278.70	17066.70	12
13	8823.17	9240.15	9714.17	10263.54	10917.10	11724.11	12779.92	14310.68	17139.09	13
14	8829.73	9247.54	9722.64	10273.48	10929.11	11739.30	12800.58	14342.97	17213.03	14
15	8836.30	9254.95	9731.14	10283.45	10941.17	11754.56	12821.36	14375.56	17288.57	15
16	8842.88	9262.37	9739.66	10293.45	10953.26	11769.88	12842.26	14408.46	17365.83	16
17	8849.47	9269.81	9748.20	10303.47	10965.40	11785.27	12863.30	14441.68	17444.87	17
18	8856.07	9277.27	9756.76	10313.53	10977.59	11800.73	12884.46	14475.23	17525.77	18
19	8862.69	9284.74	9765.34	10323.61	10989.81	11816.26	12905.75	14509.10	17608.63	19
20	8869.32	9292.23	9773.94	10333.72	11002.08	11831.87	12927.18	14543.31	17693.49	20
21	8875.96	9299.73	9782.57	10343.86	11014.40	11847.54	12948.74	14577.87	17780.53	21
22	8882.62	9307.25	9791.21	10354.03	11026.75	11863.28	12970.44	14612.78	17869.83	22
23	8889.29	9314.79	9799.88	10364.24	11039.15	11879.10	12992.27	14648.04	17961.51	23
24	8895.97	9322.34	9808.57	10374.47	11051.60	11894.99	13014.25	14683.67	18055.70	24
25	8902.66	9329.91	9817.28	10384.73	11064.09	11910.95	13036.36	14719.67	18152.55	25
26	8909.37	9337.49	9826.02	10395.03	11076.63	11926.99	13058.62	14756.05	18252.20	26
27	8916.09	9345.10	9834.77	10405.35	11089.21	11943.10	13081.02	14792.83	18354.83	27
28	8922.82	9352.72	9843.55	10415.71	11101.84	11959.29	13103.58	14830.00	18460.62	28
29	8929.57	9360.35	9852.35	10426.09	11114.52	11975.55	13126.27	14867.57	18569.76	29
30	8936.33	9368.00	9861.17	10436.51*	11127.24	11991.89	13149.12	14905.56	18682.49	30
31	8943.10	9375.67	9870.02	10446.96	11140.01	12008.31	13172.13	14943.98	18799.03	31
32	8949.88	9383.36	9878.88	10457.44	11152.82	12024.81	13195.28	14982.83	18919.67	32
33	8956.68	9391.06	9887.77	10467.95	11165.69	12041.39	13218.60	15022.12	19044.69	33
34	8963.49	9398.79	9896.69	10478.50	11178.60	12058.05	13242.07	15061.87	19174.44	34
35	8970.32	9406.53	9905.63	10489.08	11191.56	12074.79	13265.70	15102.08	19309.27	35
36	8977.16	9414.28	9914.59	10499.69	11204.57	12091.60	13289.50	15142.77	19449.61	36
37	8984.01	9422.05	9923.57	10510.33	11217.63	12108.51	13313.47	15183.94	19595.92	37
38	8990.87	9429.84	9932.57	10521.01	11230.74	12125.49	13337.60	15225.62	19748.73	38
39	8997.75	9437.65	9941.60	10531.71	11243.90	12142.57	13361.90	15267.80	19908.66	39
40	9004.65	9445.48	9950.66	10542.45	11257.11	12159.72	13386.37	15310.51	20076.39	40
41	9011.55	9453.32	9959.73	10553.23	11270.37	12176.96	13411.02	15353.76	20252.72	41
42	9018.47	9461.18	9968.83	10564.04	11283.68	12194.29	13435.85	15397.56	20438.59	42
43	9025.41	9469.06	9977.96	10574.88	11297.04	12211.71	13460.86	15441.92	20635.09	43
44	9032.36	9476.96	9987.11	10585.76	11310.46	12229.21	13486.05	15486.86	20843.50	44
45	9039.32	9484.87	9996.28	10596.67	11323.93	12246.81	13511.43	15532.40	21065.37	45
46	9046.29	9492.81	10005.48	10607.62	11337.45	12264.49	13537.00	15578.55	21302.55	46
47	9053.28	9500.76	10014.70	10618.60	11351.02	12282.26	13562.75	15625.32	21557.31	47
48	9060.29	9508.73	10023.95	10629.61	11364.65	12300.13	13588.71	15672.75	21832.48	48
49	9067.31	9516.71	10033.22	10640.67	11378.33	12318.09	13614.85	15720.83	22131.60	49
50	9074.34	9524.72	10042.52	10651.75	11392.06	12336.15	13641.20	15769.59	22459.26	50
51	9081.39	9532.74	10051.84	10662.87	11405.85	12354.30	13667.75	15819.06	22821.46	51
52	9088.45	9540.79	10061.19	10674.03	11419.70	12372.54	13694.52	15869.25	23226.39	52
53	9095.52	9548.85	10070.56	10685.22	11433.60	12390.89	13721.48	15920.19	23685.42	53
54	9102.61	9556.93	10079.96	10696.46	11447.56	12409.33	13748.67	15971.89	24215.35	54
55	9109.72	9565.03	10089.38	10707.72	11461.58	12427.87	13776.07	16024.38	24842.12	55
56	9116.84	9573.15	10098.83	10719.03	11475.65	12446.51	13803.68	16077.68	25609.23	56
57	9123.97	9581.29	10108.30	10730.37	11489.78	12465.26	13831.53	16131.82	26598.21	57
58	9131.12	9589.45	10117.81	10741.75	11503.97	12484.10	13859.60	16186.83	27992.10	58
59	9138.28	9597.62	10127.33	10753.17	11518.21	12503.05	13887.90	16242.74	30374.96	59
60	9145.46	9605.82	10136.89	10764.62	11532.52	12522.11	13916.43	16299.56	∞	60

* From 84° 30′ onwards interpolate by second differences.

TABLE VIII

CONVERSION OF RADIANS INTO ANGULAR MEASURE AND VICE VERSA

n	Radians for n degrees	Radians for n minutes	Radians for n seconds	n	Radians for n degrees
1	0.01745 32925 2	0.00029 08882 1	0.00000 48481 4	61	1.06465 08437 2
2	.03490 65850 4	.00058 17764 2	.00000 96962 7	62	.08210 41362 4
3	.05235 98775 6	.00087 26646 3	.00001 45444 1	63	.09955 74287 6
4	.06981 31700 8	.00116 35528 3	.00001 93925 5	64	.11701 07212 8
5	0.08726 64626 0	0.00145 44410 4	0.00002 42406 8	65	1.13446 40138 0
6	.10471 97551 2	.00174 53292 5	.00002 90888 2	66	.15191 73063 2
7	.12217 30476 4	.00203 62174 6	.00003 39369 6	67	.16937 05988 4
8	.13962 63401 6	.00232 71056 7	.00003 87850 9	68	.18682 38913 6
9	.15707 96326 8	.00261 79938 8	.00004 36332 3	69	.20427 71838 8
10	0.17453 29252 0	0.00290 88820 9	0.00004 84813 7	70	1.22173 04764 0
11	.19198 62177 2	.00319 97703 0	.00005 33295 0	71	.23918 37689 2
12	.20943 95102 4	.00349 06585 0	.00005 81776 4	72	.25663 70614 4
13	.22689 28027 6	.00378 15467 1	.00006 30257 8	73	.27409 03539 6
14	.24434 60952 8	.00407 24349 2	.00006 78739 2	74	.29154 36464 8
15	0.26179 93878 0	0.00436 33231 3	0.00007 27220 5	75	1.30899 69390 0
16	.27925 26803 2	.00465 42113 4	.00007 75701 9	76	.32645 02315 2
17	.29670 59728 4	.00494 50995 5	.00008 24183 3	77	.34390 35240 4
18	.31415 92653 6	.00523 59877 6	.00008 72664 6	78	.36135 68165 6
19	.33161 25578 8	.00552 68759 6	.00009 21146 0	79	.37881 01090 8
20	0.34906 58504 0	0.00581 77641 7	0.00009 69627 4	80	1.39626 34016 0
21	.36651 91429 2	.00610 86523 8	.00010 18108 7	81	.41371 66941 2
22	.38397 24354 4	.00639 95405 9	.00010 66590 1	82	.43116 99866 4
23	.40142 57279 6	.00669 04288 0	.00011 15071 5	83	.44862 32791 6
24	.41887 90204 8	.00698 13170 1	.00011 63552 8	84	.46607 65716 8
25	0.43633 23130 0	0.00727 22052 2	0.00012 12034 2	85	1.48352 98642 0
26	.45378 56055 2	.00756 30934 3	.00012 60515 6	86	.50098 31567 2
27	.47123 88980 4	.00785 39816 3	.00013 08996 9	87	.51843 64492 4
28	.48869 21905 6	.00814 48698 4	.00013 57478 3	88	.53588 97417 6
29	.50614 54830 8	.00843 57580 5	.00014 05959 7	89	.55334 30342 7
30	0.52359 87756 0	0.00872 66462 6	0.00014 54441 0	90	1.57079 63267 9
31	.54105 20681 2	.00901 75344 7	.00015 02922 4	91	.58824 96193 1
32	.55850 53606 4	.00930 84226 8	.00015 51403 8	92	.60570 29118 3
33	.57595 86531 6	.00959 93108 9	.00015 99885 1	93	.62315 62043 5
34	.59341 19456 8	.00989 01990 9	.00016 48366 5	94	.64060 94968 7
35	0.61086 52382 0	0.01018 10873 0	0.00016 96847 9	95	1.65806 27893 9
36	.62831 85307 2	.01047 19755 1	.00017 45329 3	96	.67551 60819 1
37	.64577 18232 4	.01076 28637 2	.00017 93810 6	97	.69296 93744 3
38	.66322 51157 6	.01105 37519 3	.00018 42292 0	98	.71042 26669 5
39	.68067 84082 8	.01134 46401 4	.00018 90773 4	99	.72787 59594 7
40	0.69813 17008 0	0.01163 55283 5	0.00019 39254 7	100	1.74532 92519 9
41	.71558 49933 2	.01192 64165 6	.00019 87736 1	110	.91986 21771 9
42	.73303 82858 4	.01221 73047 6	.00020 36217 5	120	2.09439 51023 9
43	.75049 15783 6	.01250 81929 7	.00020 84698 8	130	.26892 80275 9
44	.76794 48708 8	.01279 90811 8	.00021 33180 2	140	.44346 09527 9
45	0.78539 81634 0	0.01308 99693 9	0.00021 81661 6	150	2.61799 38779 9
46	.80285 14559 2	.01338 08576 0	.00022 30142 9	160	.79252 68031 9
47	.82030 47484 4	.01367 17458 1	.00022 78624 3	170	.96705 97283 9
48	.83775 80409 6	.01396 26340 2	.00023 27105 7	180	3.14159 26535 9
49	.85521 13334 8	.01425 35222 2	.00023 75587 0	190	.31612 55787 9
50	0.87266 46260 0	0.01454 44104 3	0.00024 24068 4	200	3.49065 85039 9
51	.89011 79185 2	.01483 52986 4	.00024 72549 8	210	.66519 14291 9
52	.90757 12110 4	.01512 61868 5	.00025 21031 1	220	.83972 43543 9
53	.92502 45035 6	.01541 70750 6	.00025 69512 5	230	4.01425 72795 9
54	.94247 77960 8	.01570 79632 7	.00026 17993 9	240	.18879 02047 9
55	0.95993 10886 0	0.01599 88514 8	0.00026 66475 2	250	4.36332 31299 9
56	.97738 43811 2	.01628 97396 9	.00027 14956 6	260	.53785 60551 9
57	.99483 76736 4	.01658 06278 9	.00027 63438 0	270	.71238 89803 8
58	1.01229 09661 6	.01687 15161 0	.00028 11919 4	300	5.23598 77559 8
59	.02974 42586 8	.01716 24043 1	.00028 60400 7	330	.75958 65315 8
60	1.04719 75512 0	0.01745 32925 2	0.00029 08882 1	360	6.28318 53071 8

Conversion of Radians into Angular Measure.

Radians	Angle °	′	″	Radians	Angle °	′	″
0.1	05	43	46.48062 47	0.006	0	20	37.58883 75
0.2	11	27	32.96124 94	.007		24	03.85364 37
0.3	17	11	19.44187 41	.008		27	30.11845 00
0.4	22	55	05.92249 88	.009		30	56.38325 62
0.5	28	38	52.40312 35	0.0100	0	34	22.64806 25
0.6	34	22	38.88374 83	.0001		00	20.62648 06
0.7	40	06	25.36437 30	.0002		00	41.25296 12
0.8	45	50	11.84499 77	.0003		01	01.87944 19
0.9	51	33	58.32562 24	.0004		01	22.50592 25
1.00	57	17	44.80624 71	0.0005	0	01	43.13240 31
0.01	00	34	22.64806 25	.0006		02	03.75888 37
0.02	01	08	45.29612 49	.0007		02	24.38536 44
0.03	01	43	07.94418 74	.0008		02	45.01184 50
0.04	02	17	30.59224 99	.0009		03	05.63832 56
0.05	02	51	53.24031 24	0.00100	0	03	26.26480 625
0.06	03	26	15.88837 48	.00001		00	02.06264 806
0.07	04	00	38.53643 73	.00002		00	04.12529 612
0.08	04	35	01.18449 98	.00003		00	06.18794 419
0.09	05	09	23.83256 22	.00004		00	08.25059 225
0.100	05	43	46.48062 47	0.00005	0	00	10.31324 031
0.001	00	03	26.26480 62	.00006		00	12.37588 837
0.002	00	06	52.52961 25	.00007		00	14.43853 644
0.003	00	10	18.79441 87	.00008		00	16.50118 450
0.004	00	13	45.05922 50	.00009		00	18.56383 256
0.005	00	17	11.32403 12	0.00010	0	00	20.62648 062

Numerical Constants.

$\log_{10} 2 = 0.30102\ 99956\ 63981$	$\frac{1}{\sqrt{\pi}} = 0.56418\ 95835\ 47756$
$\log_e 2 = 0.69314\ 71805\ 59945$	$\log_{10} \frac{1}{\sqrt{\pi}} = 9.75142\ 50636\ 52933$
$\log_e 10 = 2.30258\ 50929\ 94046$	$\sqrt{\frac{\pi}{2}} = 1.25331\ 41373\ 15500$
$e = 2.71828\ 18284\ 59045$	$\sqrt{\frac{2}{\pi}} = 0.79788\ 45608\ 02865$
$\log_{10} e = 0.43429\ 44819\ 03252$	$\log_{10} \sqrt{\frac{2}{\pi}} = 9.90194\ 00614\ 84924$
$\log_{10}\log_{10} e = 9.63778\ 43113\ 00537$	1 radian $= 206264.80624\ 70964$ seconds
$\pi = 3.14159\ 26535\ 89793$	$= 3437.74677\ 07849$ minutes
$\log_{10} \pi = 0.49714\ 98726\ 94134$	$= 57.29577\ 95131$ degrees
$\log_e \pi = 1.14472\ 98858\ 49400$	$\log_{10} 206264.80625 = 5.31442\ 51332$
$\frac{1}{\pi} = 0.31830\ 98861\ 83791$	
$\pi^2 = 9.86960\ 44010\ 89359$	
$\frac{1}{\pi^2} = 0.10132\ 11836\ 42338$	
$\sqrt{\pi} = 1.77245\ 38509\ 05516$	

SMITHSONIAN MATHEMATICAL TABLES

HYPERBOLIC FUNCTIONS

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CITY OF WASHINGTON
PUBLISHED BY THE SMITHSONIAN INSTITUTION
1909